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Ski-ing at Sunshine Lodge, located fifteen miles south-west of Banff, with runs you have dreamed about.

By Courtesy of the Canadian Pacific Railway Company.

A nation cannot live in a spiritual vacuum. If we abandon what I call Biblical philosophy we shall be driven to another, to the atheist moralism of Marxism, perhaps, or it may be to the primitive romanticism of race and blood.

If we were defeated in a great war we should suffer much, but still be the same people. If we abandoned the Bible and took another philosophy of life, we should be the same body with a new soul. It would be, in effect, the death of the England known to history, and the birth of some new and how much lesser people.—Dr. N. Micklem in Medley.

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Some Observations on Operative Dentistry with Particular Reference to Gold Foil *

by H. M. CLINE, D.D.S., Vancouver, B.C.

IN looking over the field of dentistry we find certain cardinal factors that contribute very substantially to making this profession an ever-increasingly important part of our modern civilization. Probably the most important is the fact that health knowledge knows no international boundaries. In dentistry, as well as in medicine, scientific findings are given and accepted gratefully in the common cause of making the world a better place in which to live for peoples of all nations.

Thus we see contributing to the important procedures of modern dentistry from the international field of general medicine such men as Hippocrates (460 B.C.), the father of scientific medicine and dentistry; in the more modern medical world, Lister, Pasteur, Osler, Banting and Mayo; and in dentistry, G. V. Black, C. N. Johnson, Searles, Waedelstadt, Sim Wallace, and many others.

We have been given major findings, such as the Bacterial Theory of Infection to tell us the importance of sterilization of the field of operation. (Incidentally, I note by the newspaper of recent date a report from the Vancouver General Hospital of a record for childbirth mortality of only 3 in 2404. What a contrast to 100 years ago!)

Anaesthesia has been given to us within the last 100 years—General, 1840-50; Cocaine, 1866; Novocaine, 1905.

Another of the many legacies modern dentistry has received as its birthright is the procedure of filling teeth by the use of gold foil. After all, our business as dentists is to keep the mouth in general, and the teeth in particular, in a state of health. The medical profession has accepted the tremendous effect of teeth on general health and many times has Mayo's assertion, re the importance of healthy teeth, been quoted; so we must accept the challenge this confidence places in us.

During the past season our Society has been fortunate in having excellent programs. One of these was a very able talk on "Preventive Dentistry", with particular reference to diet. We also had two excellent evenings on "Full Denture Prosthesis". Despite the many findings on diet, we are still faced with the fact that the authorities are not agreed on a practical and sure everyday preventive diet. On the other extreme, when operative dentistry fails through lack of atten-

* Presented before the Vancouver Dental Society in combination with chair clinics showing the application of the rubber dam and the use of clamps, and showing patients with operations completed during regular monthly study club sessions of the Vancouver Ferrier Study Club.

tion on the part of the patient, attention delayed too long, or lack of ability or knowledge on the part of the dentist, we have the problem of serving up canes and crutches in the form of bridges, partial and full dentures. I make no criticism of the important contribution these branches of dentistry have made to the public health, but, rather do I challenge operative dentistry to see that it is not necessary for so many people to lose teeth. On the matter of criticism, may I say at this point that it is poor taste for one dentist to criticize the work of another to a patient as this breeds a general distrust of dentistry in the mind of that patient. We do not know, nor can we always tell, the circumstances surrounding procedures that produce the reconstruction we may see in a mouth. At the same time, it is necessary for all of us to so equip ourselves to practise, and so criticize ourselves in a constructive manner, that dentistry shall continue to make the important strides in the future that it has in the past.

To meet the exacting service demanded in the repairing of carious teeth, operative dentistry takes off its hat to the gold foil filling. Properly inserted, and in the areas where it is indicated, men whom we have come to know as authorities—G. V. Black, our own Canadian C. N. Johnson, Prime, Searle, Waedelstadt, Ferrier, Woodbury, and so on—place it in the front rank. This is the filling material that is accepted as the training ground of operative dentistry and the yardstick of accuracy by which all dental operations must be measured. It is no coincidence that:—

1. All first-class dental colleges consider it the major operation in their course of instruction in operative dentistry, and
2. Boards of dental examiners demand a gold foil operation as an important part of their examinations.

The most prominent men of yesterday and today agree on its fine qualities.

It does not follow, of course, that simply because a filling is made of gold foil, it is a good filling. This same observation may apply to the gold inlay, to the baked porcelain restoration, or to any other fine operative procedure. The success or failure of any filling rests entirely on the ability of the dentist. It does not follow that only men who use gold foil are good operators. But it does follow that if a dentist can insert gold foil fillings in a first-class manner, it is most likely that this man will face all dental operations with the same care that gold foil demands. Any dental operation done in a "gold foil manner" taxes one's patience and ability; but, conversely, the reward in the result accomplished repays for the effort expended on its behalf.

Inaccuracy is a factor that is creeping into modern dentistry. Contributing to this is the trend of the times—big business methods and mechanization of industry. Partial denture prosthesis in particular is being controlled to a great extent by the mechanical laboratory. What a sad commentary it is when the laboratory can tell the dentist his business! Samples of well-polished "jewelry" are produced and "the case is sold" on the advice of the laboratory. Hear what Dr. Prime has to say on the matter and on the neglect of our own teeth:—

"We talk much and do little regarding real prevention. Our greatest interest has centered in the artificial substitute. We may look through the whole field of scientific treatment for any part or organ of the human body, and its parallel can not be found. Could you imagine such ruthless abandon by those who treat diseased or injured hands or feet? Could you imagine a child being brought into an orthopedic clinic with a small lesion on its foot, which, if neglected or improperly treated, would mean unques-

H. M. CLINE

tionably the loss of the foot, and the surgeon being indifferent, feeling all the while that it is not so bad to lose a foot, for the substitute is so natural looking—so nearly like the real thing in function—made of a new aluminite material, so light, and never squeaks, never shows any corns to hurt or an ingrown toe-nail, never gets cold, and never needs a bath!"[1]

Let us not fool ourselves. The eyes and outlook of the mechanical laboratory are not those of the dentist. Dentistry is essentially a microscopic procedure, hence we must manifest a great degree of precision and accuracy. Surely we do not depend on looking at our instruments to determine whether or not they are sterile, nor can we tell by our eyes alone the value of an inlay margin.

Indications for Gold Foil

Let us now consider general indications for the gold foil filling that requires this great degree of accuracy. Dr. Ferrier set these out very clearly in the Pacific Dental Gazette, March 1927. Briefly they are:—

1. Teeth in which decay has just begun—incipient caries present the ideal situation.
2. Adults in normal health.
3. Position in the mouth. This varies with the ability of the operator.
4. Extent of decay. As a general axiom: "The greater the amount of tooth structure to be restored, the less is gold foil indicated; the less the amount of decay, the greater the indication." Large cavities with weakened walls, of course, are not a gold foil risk.

Contra-indications are as follows:—

1. Children or early adolescents where operation would be long and fatiguing, making future operations a source of dread.
2. Patients suffering from pyorrhea alveolaris, or other diseases where the result is similar (loosening).
3. Nervous patients.

The class of cavities under consideration are Nos. 1, 2, 3, and 5. The ability of the operator will, to a great extent, indicate the relative importance of filling the different classes.

In his "Operative Dentistry", G. V.

1. Jour. A.D.A., Jan. 1936.

Black sets out the important requirements for permanent filling materials as:—

1. Indestructibility in the fluids of the mouth.
2. Adaptability to the walls of the cavities.
3. Freedom from shrinkage or expansion after being made into fillings.
4. Resistance to attrition.
5. Sustaining power against power of mastication.

Dentistry today has not produced a filling material that measures up to these requirements nearly as well as does gold foil. Let me quote from Ralph H. Byrnes' in "Why Fillings Fail"[2]. In speaking of gold foil he says: "Where indicated, gold foil is the most nearly perfect filling material in existence and at once the most neglected." I would recommend that you read this article by Dr. Byrnes.

Rubber Dam

Synonymous with the use of gold foil is the use of the rubber dam. This training has contributed immeasurably to the improvement in general operative procedures. In The Journal of the American Dental Association, January, 1937, p. 86, Dr. James Prime gives fifty-seven good sound reasons why we should use the rubber dam. Also, in the same Journal January 1936, p. 51, he says: "If I wanted to find a good operator in a locality of which I had no personal knowledge, I know of no surer way than to go to the supply house and ask for the man who buys the most rubber dam."

Naturally, some questions enter our minds in justifying the rubber dam decision. These occur to me:—

1. Cost. If you carefully check this item you will find, in most cases, that it is less expensive than cotton rolls.
2. Time factor. If you put a stop watch on the time taken up by a patient in expectorating during the preparation of a cavity, you will find that about 25% of the time is used in this procedure. This may sound like a generous estimate, but nevertheless it is true. If, as many authorities tell us, it costs about $3.50 per hour to do business before the dentist draws his remuneration, then this surely represents time and money wasted in a busy practice.
3. Heart cases. Some people with heart trouble may object to the rubber dam, in which case some such drug as nembutal may serve to quiet the patient and overcome this objection.
4. Inconvenience to patient. Some operators, in defense of a system of their own, will bring out this point, but many patients do not consider it objectionable. Even if it is inconvenient, so are all our instruments and procedures. Some of the inconvenience may be obviated by the use of a well-planned rubber dam pad, (Fig. 1). One of these is cut out of heavy flannelette and discarded after using. The other is made of a double thickness of diaper cloth and is laundered. The rubber dam almost demands the use of an assistant. Dr. Montgomery, in his paper presented at the last meeting of the Pacific Coast Dental Conference at Vancouver, quoted figures to show that in British Columbia we have relatively more dental assistants than in any other state or province within the Conference area. This should be of interest to us for it leaves little excuse to neglect the teamwork this procedure, and ultimately the completed gold foil operation, encourages.

2. Jour. of the A.D.A., Dec. 1934.

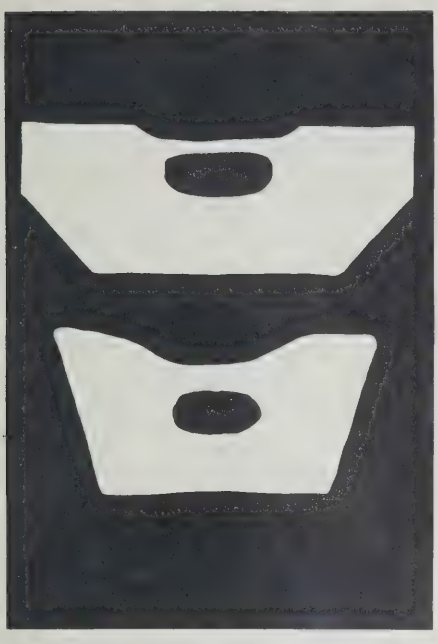


Fig. 1—RUBBER DAM PADS

The upper pad is made of heavy flannelette (13" x 4½") and is discarded after using.

The lower pad is made of material that may be laundered (size 9½" x 5").

Variations may be made from these general designs.

Weigh the above inconveniences against the fine aseptic field presented under the dam—cheeks, tongue out of the way and supported; no saliva on the field of operation. What would the nose and throat man not give for the ability to take out tonsils or to operate on antrums under the dam! He would not be so backward as many dentists in seeing the advantages.

We have, then, the decision to use the rubber dam. Let us look at some of the equipment necessary:—

1. Kind of dam. For the benefit of those who might require this information, Doherty, Hygienic or Whites may be used. It should be dark in order to make it easier to see when placing the clamps and passing through contacts. Never leave ligatures tied around the teeth under the dam. Only use dental floss for passing through contacts.
2. Clamps. The following clamps will be a nucleus for those who might wish to start, or check over, their supply:—
   Ivory—No. 00, No. 1, No. 2, No. 2A, No. 10A, No. 11A, No. 5, No. 16, No. 14.
   Whites—No. 22, No. 27, No. 18.
   Clamps such as No. 2, No. 10A and No. 11A should have the wings cut off as in the illustration, (Fig. 2).
3. Gingival clamps—Ferrier No. 212, Woodward, Modified hatch, Ivory No. 9, (Fig. 3). Ferrier clamps will fulfil the requirements in almost every instance if cut to different sizes for the various teeth. These should be blocked with compound (preferably Kerr's red) and held in position until the compound has hardened.

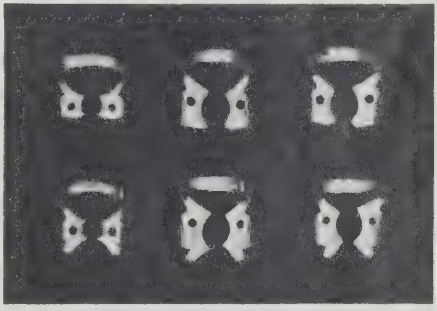


Fig. 2—CLAMPS

The clamps in the top row have been cut to permit passing through holes punched in the rubber dam.

The lower ones are the same clamps (Ivory No. 2, No. 10A, No. 11A) before re-shaping.

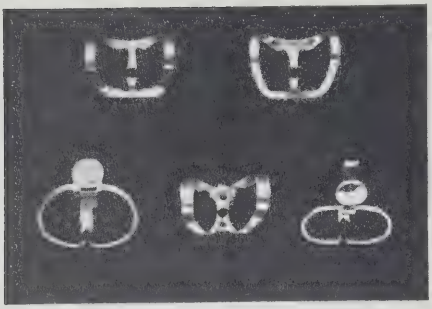


Fig. 3—GINGIVAL CLAMPS

Ferrier clamps (No. 212) above. The one on the right has been cut to fit lower anteriors and other small neck teeth.

Below: Hatch, Ivory No. 9 and Woodward clamps may be necessary at times.

4. Separators — Ferrier set. These should also be blocked with compound and tightened very gradually.

It is not the purpose of this paper to give the technique for the placing of the gold foil filling. This information may be obtained from the very excellent article by Dr. W. I. Ferrier in The Journal of the American Dental Association, March 1936.

1428 Medical-Dental Building.

In closing, I wish to stress again some of the important lessons learned from gold foil training:—

1. It teaches the use of the rubber dam and its application to general operative procedures—silicates, porcelain jacket crowns, inlays, and amalgam. Incidentally, in reference to amalgam, one of our best operators says of amalgam, "Of these materials—gold foil, amalgam, and cast gold inlay—amalgam is the most difficult to handle."[3] Dr. Hollenback says that there is only about one dentist in a hundred who can manipulate amalgam properly.
2. It is conducive to precision methods.
3. It teaches the importance of good instruments and instrumentation.
4. It shows the importance of saving teeth. Generally this is not appreciated until it is too late.
5. It gives confidence in all operations by teaching definite procedures and encouraging teamwork.

3. Jour. A.D.A., Dec. 1934.

All the world now knows that vitamins are necessary, not only for the prevention of serious disorders, but also for the avoidance of digestive troubles, obesity, nervousness, etc. There has therefore been a stampede in favour of foods rich in vitamins.

For a long time it was assumed that an excess of vitamins was not harmful. Then research work became more accurate and systematic. It was found that if a guinea-pig was given large quantities of Vitamin C, it lost weight and developed the symptoms of scurvy which moderate doses of Vitamin C cured. . . . If a substance known as ergosterol, a highly concentrated preparation of Vitamin D, is administered in large daily doses to dogs, rabbits and cats, they become emaciated and die.

It follows from what has been said that we may suffer from a too generous as well as from a too meagre supply of vitamins. There is an optimum or best dose, and extremes on both sides of it are harmful.—Better Health (Communicated by the League of Red Cross Societies).

An Aseptic Routine for a Dental Office

by HAROLD N. BEACH, D.D.S., Pembroke, Ontario

THE author desires to describe and advocate a general routine carried out in his office which he believes is efficient and may be found useful by others.

In the first place much of the standard equipment manufactured and offered for sale by the supply houses makes aseptic practice impossible if used as originally intended.

For instance let us consider the ordinary dental cabinet. It contains rows of corrugated drawers or trays which may or may not be removed, may or may not be sterilized. Suppose the tray can not be removed therefore it cannot be sterilized. The operator using this type of cabinet may be very careful to sterilize his instruments after using them but puts them back where they are likely to become recontaminated in a cabinet the tray of which was wiped out with alcohol for the last time on the day he originally opened his office. The man whose trays can be removed is in much the same situation if he has no autoclave with which to sterilize them.

The fault is not entirely with the manufacturers. The fault is largely with the dental profession. When we, as a profession, demand equipment that will be useful in the performance of an aseptic routine in the dental office then it is reasonable to suppose that we will find the manufacturers ready and anxious to meet the demands of their customers.

When the author started in practice he supplanted the instrument cabinet of the ordinary type with two units of equipment as shown in fig. A. The cabinet contains supplies, cement slabs, spatulas, prosthetic instruments and a drawer for operative instruments which cannot be boiled and which are kept as free as possible from contamination. The instrument stand, beside the cabinet, carries on the top shelf all the operative instruments which can be boiled. These are covered by a sterile towel clipped to a frame (raised up in the picture) which can be raised and lowered by the foot lever at the side of the stand (see fig. B). Since the instruments on this shelf are frequently used this apparatus facilitates their removal and increases the chances for asepsis.

The lower shelf of the instrument stand contains surgical instruments not frequently used in general practice such as mouth props, needle forceps, bone forceps, etc.

The instruments on these shelves and the Mayo table (see fig. C) are laid out

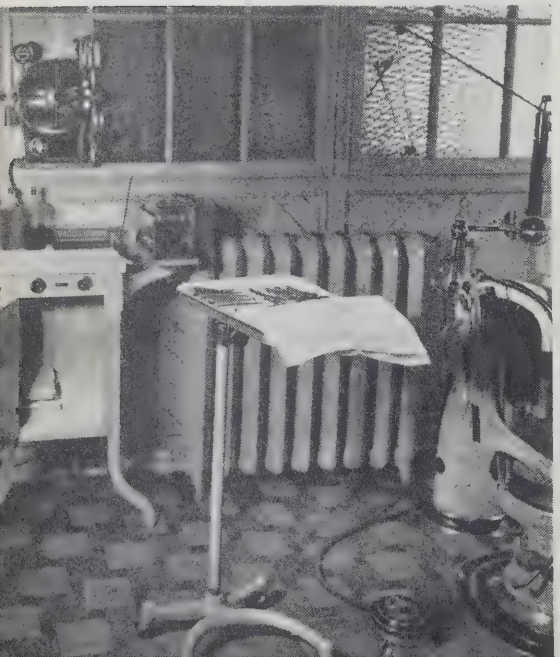
Figure A

on sterile towels in the manner shown in the illustrations.

All these towels and instruments are autoclaved twice a week. This procedure is considered necessary in order to keep the infrequently used instruments sterile. Instruments for use are removed from the stand and table and replaced, after boiling, by means of instrument forceps which are kept in a germicidal solution.

Figure B

Figure C



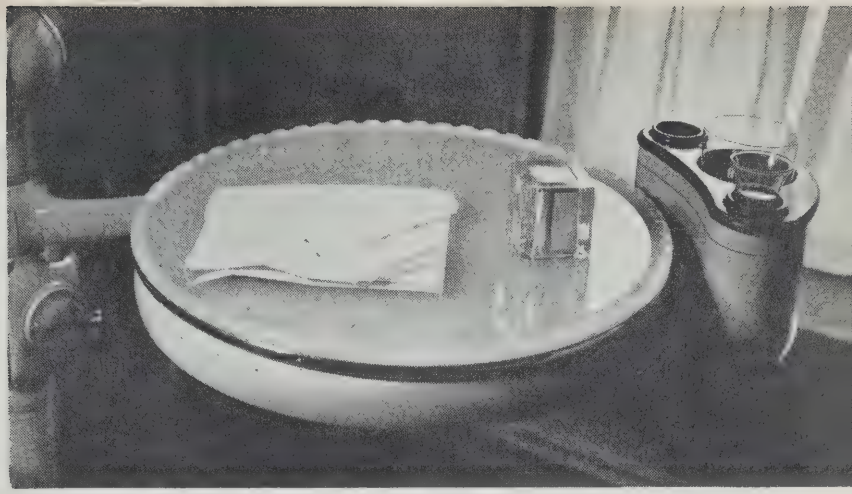


Figure D

The solution used is one of Parke Davis germicidal discs, kept in a narrow glass bottle (pickle bottle). This bottle is held in a can bolted to the side of the sterilizer stand. A black arrow in fig. C points to this position which unfortunately is obscured by shadows in the picture.

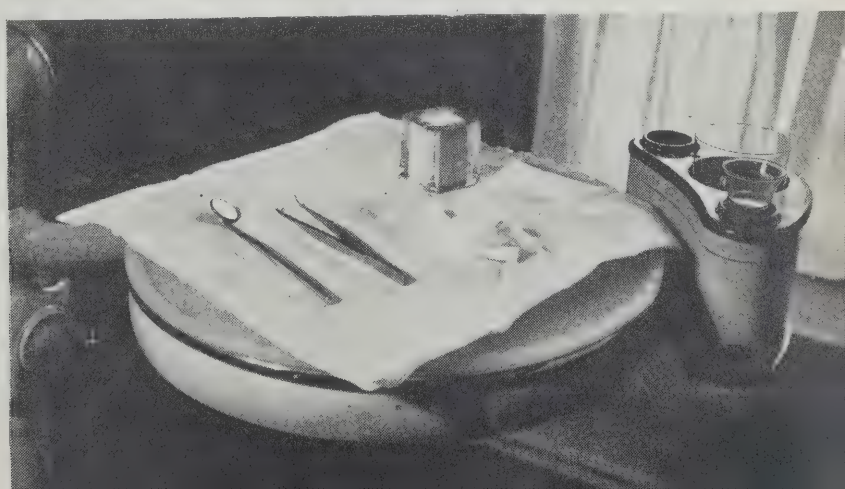
To provide a sterile cover for the unit tray and at the same time a sterile quantity of cotton rolls and pellets, packages are made up (see fig. D) containing a number of rolls and a small supply of cotton which are autoclaved and then stored in the cabinet (see fig. C) for future use. The package is so folded that when opened and spread upon the tray the cotton is disclosed and at the same time the tray is provided with a sterile cover. This is a procedure employed by the Faculty of Dentistry, University of Toronto.

These tray covers are made from ordinary paper napkins which unfortunately do not cover the tray. Therefore care must be taken in using them lest instruments become contaminated from the tray itself. It would be better if covers were available which completely covered the tray.

Some of the better-class patients might object to the use of these paper covers and if the operator feels this to be so, a sterile towel might be used as a cover.

The treatment of a patient involves the following routine. After the patient is seated and the headrest adjusted for examination, the nurse, using the instrument forceps, places one of the sterile packages on the tray (see fig. D again). After the operator washes his hands he unfolds the package and arranges it as the tray cover. (See fig. E.) The waste receiver (previously sterilized) and suit-

Figure E



able instruments for the work at hand are placed on the tray by the nurse, using instrument forceps.

If an extraction is indicated the nurse moves the Mayo table to a position behind the chair, (the position of the table in fig. C. is approximate). With the instrument forceps she then turns back the covering towel and selects for the operator the instrument he desires. The sight of surgical instruments often causes apprehension in patients and having them laid out behind the patient minimizes this feeling.

If a basin is being installed in the office an elbow or foot control should be specified.

The hand brush at the basin should be kept bristles down in lysol in order to prevent cross infection between patients. Operators should make vigorous use of this brush before all examinations.

Procedures such as are described above involve the use of an autoclave in the office. It is the author's humble opinion that the autoclave should be standard equipment in all dental offices. Dentists, constantly, are performing minute surgical operations in a field where the introduction or extension of infection may bring, to say the least, quick and uncomfortable results. An autoclave will make possible an adequate supply of sterile wipes and cotton, and generally facilitate aseptic methods. It is important to be continually conscious of the aseptic technique being employed so therefore be careful of contamination, otherwise the chain of asepsis may be broken and the purpose of the routine would be defeated.

80 Pembroke St. W.

Conventions

Midwinter Meeting of the Chicago Dental Society, Hotel Stevens, Chicago, Illinois, February 12-15, 1940.

Minnesota Dental Association, St. Paul, Minnesota. February 27-29, 1940.

The National Dental Centenary Celebration, Baltimore, Md., March 18-20, 1940.

Ontario Dental Association, May 27-29, 1940.

American Academy of Periodontology, Cleveland, Ohio, September 5-7, 1940.

American Dental Association, Cleveland, Ohio, September 9-13, 1940.

The best insurance against old age and disability is an interesting mind. In my life of professional teaching, I have never endeavoured to make young men more efficient; I have tried to make them more interesting. I like to hang pictures on the walls of the mind; I like to make it possible for a man to live with himself, so that he will not be bored with himself.—William Lyon Phelps.

*Law and The Dentist**

by F. PHILIPPE BRAIS, K.C., Montreal, Quebec

IN THIS Province, as early as 1869 a group of dentists obtained the issuance of a charter by virtue of an "Act" to incorporate the Association of Dentists of the Province of Quebec.

Today, the public is protected and no one may practice dentistry without having completed the required study, but this certificate of competence is not a certificate of capacity, although it was so contended for a period. A dentist can be sued before the courts by any patient who believes that he has been badly treated. Moreover, the dentist will be condemned to pay damages, if it is found that, after the application of the legal principles which we will examine, he has been guilty of malpractice.

In this Province, the two principles of liability which interest us are laid down by articles 1024 and 1053 of the Civil Code.

Article 1024 reads as follows:

> "1024. The obligation of a contract extends not only to what is expressed in it, but also to all the consequences which, by equity, usage or law, are incident to the contract, according to its nature."

Article 1053 reads as follows:

> "1053. Every person capable of discerning right from wrong is responsible for the damage caused by his fault to another, whether by positive act, imprudence, neglect or want of skill."

For many years, it was thought that the liability of a dentist arose out of article 1053 of the Civil Code, but, today, it is recognized that, if a dentist commits a fault, it is not a case of a délit or quasi-délit to be governed by article 1053, but, on the contrary, a contractual fault to be governed by article 1024. The consequences are important as we shall see.

The dental profession is the gainer in one important way by reason of this distinction. If his liability was to be governed by article 1053, he would be liable not only for his slight fault but for his slightest fault, while under article 1024 he is only liable in cases of "gross fault" (faute lourde).

What is meant by "faute lourde" is well set forth by Mtre. Peytal, an advocate of the Court of Appeal of Paris, in an address to the Féderation Dentaire Nationale de France, where he said, "The doctor is only liable if he has committed gross fault, that is to say, a fault such as a man with a normal intelligence, with normal facilities of comprehension and with a diploma should not have committed. It is a fault unpardonable and inexcusable."

As a matter of fact, the distinction is often lost sight of and I am convinced that ninety percent of the members of the Bar, if they were called upon to give a snap decision, would state that a dentist's liability was to be governed by article 1053.

While the profession gained in one important aspect by reason of this distinction, it was the loser in other ways. Delictual liability becomes prescribed by the failure to take action within one year, whereas the delay in cases of contractual fault is thirty years. If one of you gentlemen should strike an individual with your automobile, he could not sue you after the expiration of one year from the date of the accident, but, if he should be injured while being treated by you in your professional capacity, he would

* Presented to the Montreal Dental Club, April 17, 1939.

have thirty years in which to demand damages.

Extent of Liability

We may now examine just what is the extent of the liability of a dentist. Our courts have recognized, and correctly so, that the art of dentistry, like the art of medicine, is constantly in a state of evolution and that the judge on the bench should, accordingly, not take it upon himself to decide whether one doctrine or the other should prevail. The dentists and the doctors who honestly exercise their profession to the best of their knowledge and ability will rarely see themselves condemned even if, as regards certain doctrines, one can argue error of judgment. It would, however, perhaps be simpler and more precise to deal with the decisions of our courts. The latest, and perhaps the most interesting, not only from the legal point of view but from your own point of view, is the case of Bouillon vs. P. where, by the unanimous judgment of the Court of Appeal of this Province, a dentist was discharged from the verdict rendered against him by the jury which had heard the case.

The case involved the breaking of a No. 23 needle used by the practitioner for a manibular injection. At trial, there was considerable controversy. A number of dentists, some of them well known, others less, swore that there was no danger in using a steel needle rather than a platinum needle and that this method is constantly and currently employed. Other dentists, called on behalf of the victim, swore that in all universities, the pupils are taught that, as a measure of precaution, one must use a platinum needle, which is more expensive, it is true, but also more flexible.

The jury found that the fault was on the part of the dentist, who was condemned to pay a large amount. The case was carried to appeal, where the findings of the jury were rejected. To reach this conclusion, it was necessary for the appellate tribunal to decide, not that the jury had made a mistake, but, on the contrary, that there was no proof in the record to establish a fault.

The Honourable Mr. Justice Dorion, in his notes, says:

> "It is generally admitted, in these questions of practice, that the practitioner is not held to exclusively employ the means or instruments which are reputed the best, but that he may use means and instruments which are currently employed. And this is reasonable, for, in these matters where the progress of science is constant and produces changes which definitely triumph only after long periods of experimentation, nothing is absolute, and the whole is reduced to the rules of ordinary prudence."

The Honourable Mr. Justice Bond, in turn, carefully examines the jurisprudence and arrives at the following conclusions: (63 K.B.—P.9).

> "To resume, then, the proposition may be stated thus: a dental surgeon who, in the course of an operation, follows a technique generally adopted by his colleagues in their profession, and makes use of an instrument ordinarily employed by his colleagues, is not guilty of fault, apart from other special circumstances."

To arrive at this conclusion, he refers to well known authorities such as Brothers, 'Dental Jurisprudence', who states that it has been generally held that the dentist who does not do what a reasonable prudent dentist would do under the circumstances, or who does what a reasonable prudent dentist would not do under the circumstances is considered guilty of negligence and responsible for the damage suffered by his

patient and that the patient suffers injury thereby.

We also find that Beven, a well known English author, in his work "On Negligence" (4th Edition, at page 1368, states: (63 K.B. P. 7).

> "The rule of skill to be used by a dentist is arrived at in the same way as with regard to a member of any other branch of therapeutic art. The standard is that of the ordinary average registered practitioner, unless there are in the particular case circumstances that point to some other."

He cites the case of Lampheer vs. Phipos, where it is held: (63 K.B. P. 7).

> "Every person who enters into a learned profession undertakes to bring to the exercise of it a reasonable degree of care and skill. He does not undertake, if an attorney, that at all events you shall gain your case, nor does a surgeon undertake that he will perform a cure; nor does he undertake to use the highest degree of skill. There may be persons who have greater education and greater advantages than he has, but he undertakes to bring a reasonable degree of skill."

He then cites a case of Turiff vs. King, 9 D.L.R., p. 676 where the Supreme Court of Saskatchewan decides:

> "The public practice of the profession of a physician involves an undertaking by the practitioner that he has the ordinary skill and knowledge necessary to perform his duty towards those resorting to him in that character; but he will not be answerable in an action for malpractice merely because some other practitioner might have used more care."

Judge Bond then weighs the contradictory evidence and says:

> "The evidence of the experts (and there were a number of them called) is to some extent contradictory. But the preponderance of evidence is in favour of the view that, in this vicinity at least, steel needles are more commonly used than p l a t i n u m needles. There are, apparently advantages peculiar to each—but from the evidence submitted it is clear that many reputable practitioners, for one reason or another, prefer to make use of a steel needle under conditions similar to those in the present case."

These cases of broken needles with those resulting from teeth which slip during extraction have given rise to a larger number of actions than any other cause.

In the case of Juteau vs. B., Honourable Mr. Justice Philippe Demers, for whose opinion I have the greatest respect, found that the proof established that the break of the needle was due to a nervous movement on the part of the patient and not of the dentist. He also discusses the controversy resulting from the use of a platinum and steel needle. From the facts, he arrives at the same conclusion as the Court of Appeal. In law, he holds:

> "Considering that all operations are subject to accidents for which the surgeon cannot be held responsible unless it is proven that the accident results from the practitioner's fault."

The general doctrine, in France, is set forth in Planiol and Ripert, Vol. 6 Nos. 523 et seq. p. 715. This exposé is of particular importance in view of the fact that in the province of Quebec the principles of civil responsibility are governed by the Civil Code, which as you know is the French law which was in force at the time of the Quebec Act, in 1774, except where the present Civil Code and the Code Napoleon of France differ in their text, the courts constantly refer to French doctrine and authorities. In Planiol and Ripert, we read:

'The doctor is responsible for his

fault in the exercise of his profession. His responsibility is the same whether the treatments result from a contract or when the doctor has treated without previous agreement. In both cases he is held to the same diligence. But he is also responsible in conformity with Common Law for the prejudice caused by his imprudence or his negligence in the diagnosis of the ailment and in the application of the treatment and in the execution of the operations."

(P. 719) It is only necessary to make the following reserve which is found in the judgments: when, to find fault it is necessary to weigh or appreciate the value of a diagnosis or of a treatment discussed between doctors, it is only with the greatest prudence that the courts should condemn and only if the experts and writings of recognized medical authorities are in agreement to reject. The same is to be said of the appreciation of the methods used by a surgeon and of his skill. This principle is not exclusive to doctors: it is the same every time a judge finds himself in the presence of a technical difficulty, even if it bears upon a question of law. One is not at fault in being wrong on a disputed point.

(This is where the lawyer finds consolation. After all every time a case is heard and a judgment rendered, one of the distinguished gentlemen of the Bar must be wrong).

He continues:

"But this prudence and this reserve are without reason when the fault charged is negligence in the application of a treatment or in the performance of an operation such that its application or performance does not give rise to any scientific debate: thus, a material error in a prescription, the administration of one medicine instead of another, the fact of forgetting a sponge or instrument in the wound, of delivering a certificate after an insufficient examination or without examination, of not notifying the wet nurse that the baby, which is handed to her, suffers from a contagious disease, of approaching a cauterizer to skin which is still damp with alcohol. Without doubt, the most diligent person is susceptible of an unfortunate thoughtlessness, but if he suffers the consequences when he is not a doctor, why should it be otherwise when this thoughtlessness occurs in the practice of medicine?"

Unauthorized Operations

It might be well to here open a parenthesis and immediately examine the question of unauthorized operations. These cases generally arise when the patient, under the effect of an anaesthetic, is in the hands of the doctor or dentist. The previous diagnosis has not revealed a serious condition which might demand an urgent decision. Is the doctor or dentist allowed to intervene and go beyond the authorization given to him by the patient? On this subject, Planiol and Ripert state:

"Each man has and in principle alone has the right to dispose of his body. As a result, before applying a treatment or practising an operation which presents risks or appears fairly serious, the doctor must obtain the consent of the patient, or of those who have the care and direction of the patient, and in order that the consent be given with full knowledge, he must disclose the dangers. On the other hand, the appreciation of this last duty and of its execution are delicate and the judges should take into account the

circumstances of the case. In particular the doctor should not be obliged, in order to protect his responsibility, to frighten the patient by disclosing risks which exist, but which, from experience, are rarely realized. On the other hand, he may take upon himself, during the course of an operation, if the circumstances absolutely require, to do more or otherwise than had been agreed upon. He may, in cases of urgency (as in the presence of a strangulated hernia, or of a serious haemorrhage) operate immediately without asking consent. But the consent must be strictly required before experimenting with a new and dangerous treatment or an operation of very uncertain result. Furthermore, should occasion arise, the doctor should refuse to agree with a patient who demands an experiment, especially if it is a case of a simple imperfection which one wishes to have removed."

Liability of Dentist

In the United States, the responsibility of the dentist has gone through its evolution as everywhere else. Mikell 'Dental Jurisprudence' in the chapter entitled 'Liability of Dentist to Patient for Malpractice' has summarized, I believe, in its clearest form, the whole situation, when it is stated:

> "In General:—In determining the degree of care and skill which the physician, surgeon and dentist must exercise in order to escape liability for damages that the patient may suffer from his treatment, the courts are not entirely agreed. All the courts hold that the practitioner cannot be held liable by showing that he did not exercise the highest degree of skill and care possible. All agree that to fasten such liability upon him, it is not necessary to show that he was grossly negligent in the given case. It is certain that he must have treated the patient 'negligently' in order to be liable; and that if he exercised 'reasonable' care and skill, he is not liable. The negligence which renders a dentist liable in an action for malpractice is simply a failure to perform the duty which he, as a professional man, owes to his patient. This duty is usually expressed in the formula; a physician, surgeon or dentist is required to possess and exercise that degree of skill and learning ordinarily possessed and exercised by the members of his profession in good standing, practising in similar localities; and it is his duty to use reasonable care and diligence in the exercise of his skill and the application of his learning, and to act according to his best judgment. The law exacts of a physician, in the treatment of a patient, that reasonable degree of skill, and that reasonable degree of care, which are ordinarily possessed and exercised by the profession, and he is liable in damages only for injuries resulting to the patient from the lack of either of these requisites."

This author adds that it is, moreover, necessary to take into account,

a) The place of the operation.

He cites judgments in lesser populated and advanced portions of the Continent, where it has been held that one must take into account the skill ordinarily employed and which one may normally find in such a locality.

b) Advance of science at the moment of the operation.

One must take into account the progress of science but cannot require that all be equally informed.

c) The established methods of treatment.

The practitioner must employ the methods generally recognized by the profession. A method employed for a long time, recognized by daily practice should be followed.

d) The fees paid cannot be taken into consideration.

This, of course, is obvious.

Court Decisions

Before considering the necessary steps which a dentist must take in the event of an operative accident, it may be well to look at a few decisions which give concrete cases. In the case of Turiff vs. King, the Supreme Court of Saskatchewan condemned the dentist who had provoked an abscess. It concludes:

> "The question is whether there has been 'a want of competent care and competent skill' to such an extent as to lead to the bad result; or, as it is stated in an American case, whether the amount of care and skill bestowed is up to 'the average of the reasonable skill and diligence ordinarily exercised by the profession as a whole, not that exercised by the thoroughly educated nor yet that exercised by the moderately educated, nor merely of the well educated, but the average of the thorough, the well, and the moderate — all, in education, skill, diligence, etc.'; and to this must be added—with allowance for particular circumstances of position, whether urban or rural, near a centre of population or remote."

In Seguin vs. Doctor D., Honourable Mr. Justice Surveyer, of this province, liberated a dentist who had allowed a tooth to fall into the lung whilst the patient was under the effect of chloroform and decides as follows:

> Considering as regards the second cause of complaint that the loss of a tooth, which is not an abnormal event is neither an alarming event as there are 19 chances in 20 that this tooth will fall into the oesophagus, in which case it will be normally evacuated; that the cough of the patient after the operation is not an indication that the lost tooth has found its way into the lung, this cough occurring in the majority of cases being caused by the anaesthetic, blood in the throat, nervousness, etc.;

In Chagnon vs. C. Honourable Mr. Justice Mercier decided:

> "No responsibility attaches to a dental surgeon who practices an extraction when the claimant cannot establish that the fault which he charges is such that a dentist having normal experience, science and prudence would not have committed."

A case which goes further, and perhaps too far, is that of the Province of Ontario in Bosse vs. P.—There had been misunderstanding between the patient and the dentist, the former believing that he would have only one tooth extracted, the latter removing all the teeth after having put his patient to sleep. It was decided by Chief Justice Mulock (who was 90 years of age when he retired from the bench and who probably had no teeth at all left when he rendered this decision), as follows:

> "The defendant examined the plaintiff's mouth and then saw the condition of the teeth and must have realized that the plaintiff's health demanded their immediate removal. These two circumstances, I think, caused the defendant not unreasonably to assume that the plaintiff desired their removal, whereupon he did what was in the best interests of the plaintiff; nevertheless he seems

to have misinterpreted the plaintiff's instructions and thus committed an actionable wrong. It caused no damage to the plaintiff, but on the contrary was a benefit to him, and if he were entitled to maintain this action he would, in my opinion, be entitled to merely nominal damages."

In Drimen vs. D. we at last find a dentist who does not escape. But he had been unfortunate enough to leave 17 broken teeth in the jaws of his patient.

In Pinconvski vs. T. & J., the dentist and the anaesthetist were found jointly and severally responsible because a tooth was lost in the lung. It is well to note that this case was settled after the inscription in appeal.

In St.-Onge vs. Dr. B., we read:

The facts:

"On account of the difficulties which arose during the extraction of plaintiff's teeth, the dentist knew that he had broken the teeth and could anticipate that something remained in the jaw, although ignoring what it was and where it was, and he even recognized that the extraction of teeth brought about a condition which resulted in serious complications. HELD: When, following extraction of teeth, one should apprehend a danger of infection, the dental surgeon commits a fault which engages his responsibility if he neglects to follow the rules of his art, in the present circumstances, in not having recourse to x-rays."

In all these cases which we have discussed, actions had been instituted and there was a final judgment between the litigants which are gradually reported. But there are many other cases which are disposed of without publicity, some being withdrawn and others being settled. It is perhaps in these latter cases where no judgments are rendered that we may find the most useful examples for the subject of this address.

Cases Settled Out of Court

A dentist in a rural district was recently sued for having infected the mouth of his patient. In itself, there was nothing here to cause him anxiety. The dentist gave us a sworn statement that he always properly and completely sterilized his instruments and that he had taken all the necessary precautions before the operation. We were making ready to valiantly defend this distinguished practitioner when it was decided to enquire a little more fully into his antecedents. Incredible as it may seem, it was ascertained that he had practiced in four localities in this province and each time he had abandoned his practice after having lost his clientele as a result of one or two startling accidents due, generally, to infection. Needless to say that the case was settled in all haste and that this dentist will be unable in future to obtain an insurance policy. It is also possible that he may decide to follow the suggestion then given to practice mining in future rather than dentistry.

In another case, a dentist, of excellent reputation this time, and practising in an industrial centre, had fractured the base of the sinus, losing therein the fragment of a tooth, the second upper maxillary, if I remember correctly. This doctor, I repeat, was a good practitioner and absolutely conscientious. He swore to us that he had examined the cavity after the extraction, had explored it and had verified that the alveolus was in good condition, that there was no foreign body and that he would have noted if the tooth had not come out intact. Unfortunately, however, the x-ray showed the fracture and a small part of the dental root in the sinus. Unfortunately, all this was only discovered some considerable time afterwards and as the result of a generalized infection the patient was brought to the

hospital, where the fragment was removed. It was in fact a dental root. There was nothing to do but to settle.

Through error, the dentist had failed to note a condition which should not have escaped his attention. There was error and negligence on his part as thorough examination would have revealed the condition of the patient's mouth.

Cases of Osteomyelitis

The most serious and difficult cases and, at the same time, the saddest, are those resulting from osteomyelitis of the jaw.

Doctor Maurice Roy, professor at the Dental School in Paris, notes that if osteomyelitis of the jaw is, for the patient, one of the most serious complications of dental infections, it constitutes, for the dentist, one of the most serious eventualities from the point of view of its possible juridical consequences. In fact, the inception of this redoubtable complication, which may bring about not only the loss of a large number of teeth, but also of a considerable proportion, even the totality of the jaw, is apparently inconsequential. He says: "A tooth affected by infection, presents indications of acute pain absolutely analogous to that which accompanies the development of an acute alveolar abscess, and it is only after a fairly long period that, the purulent collection not forming, the inflammation spreading to a more or less considerable section of the bone with persistent pain, the dentist as well as the surgeon can have the first elements necessary for diagnosis between the insignificant alveolar abscess and osteomyelitis of the jaw. The patient, suffering from the tooth, finds a dentist and asks for extraction.

"Under all circumstances and the more so if he could think of the possibility of osteomyelitis, the duty of the dentist noting an infected tooth or root causing acute inflammation, is to remove it immediately, and this is what he generally does.

"If he is dealing with an alveolar abscess, the inflammatory phenomena and the pain which they occasion will quickly disappear following the intervention, but this is not the case in the event of osteomyelitis (and I repeat, at the inception it is absolutely impossible for anyone to make a differential diagnosis between an alveolar abscess which is in formation and osteomyelitis of the jaw which is in evolution).

Therefore, the inflammatory phenomena, in spite and not on account of the extraction, continue, their evolution spreading out to a more or less considerable portion of the jaw, generally in front and behind the causal tooth."

Doctor Roy then describes an operation which he performed as the result of an action instituted by a patient against one of his colleagues who was accused of having provoked an infection. He adds: "The reason why these accidents continue their evolution after and not on account of the extraction is that as we know the development of alveolar abscess and that of the osteomyelitis are absolutely different."

He explains that at the inception of a case of osteomyelitis one may perhaps save the jaw by extracting the tooth and, if the case is not too far advanced, this intervention may sometimes save the patient. But, what happens too often is that the patient sees in the extraction the origin of the infection, attributing the pain from which he previously suffered exclusively to an ordinary toothache. The operation appears, to the patient, as the 'prima movens', the starting point of the phenomena which follow. We may, therefore, well again refer to the words of Doctor Roy in his interesting conference:

> "Their evolution, he says, in the simple mind of the patient and of

those who surround him (and these are sometimes still more dangerous) lead him to the following reasoning: 'I had a tooth which hurt. I had it removed and, far from being cured, this intervention provoked formidable complications such as have never been seen. It is evidently the dentist, who, in removing my tooth, used dirty instruments and caused this trouble and terrible infection'. "And, from these deductions to the Court House, there is, I may say, but a step."

He then explains that in one case in particular where, according to him, as an expert, it was clear that the dental surgeon had properly performed a very difficult extraction, the court condemned him as having caused the accident for which he was absolutely not responsible. The argument of the patient was: " 'I was well and now I suffer a horrible incapacity.' And the court agreed: 'The man was well, he has lost a part of the jaw by infection. It is clear that the doctor infected him.' " Useless to add that a dentist carrying the weight of a judgment in such a serious case would probably have to abandon his clientele.

This brings me to probably the most practical portion of this address. We have seen that, thanks to the open minds of our judges, the dentists who are sued, in this province at least, have been liberated in the majority of those cases where it has been judged opportune to enter a defence. In the United States, they have not been so fortunate. In France, the authors which we read complain bitterly of the fact that certain judges refuse to follow the opinion of experts, even in those cases which appear clear from the medical point of view.

Effect on Reputation

There are two categories of lawsuits: those of which we hear and those which are silently settled. Anomalous as it may appear, it is generally the dentist who is sued and who is guilty of no fault whatsoever who suffers more than the one who is really responsible. The latter can and must settle the claim. His reputation is no more affected than his acts justify, and there has been no publicity. On the other hand, the competent practitioner to whom an accident has occurred, must suffer considerable inconvenience and sometimes even see his reputation threatened to such an extent that he fears the loss of his clientele. And, nevertheless, we have some of our best dentists who have been sued and who, it is understood, have fully succeeded in their defence. During the course of the proceedings, however, they have gone through unpleasant periods which they will not wish to see occur anew. I have, myself, seen a number of our most competent practitioners to whom accidents had occurred for example, one who had broken a lower jaw in endeavouring to extract an impacted tooth, or again, broken needles, haemorrhages following an extraction, etc., etc. I had real sympathy for these clients who suffered more than ever their patients had and who, for periods of months, would mechanically carry on their work under a cloud of fear of seeing revealed to the public at large that something had happened at their office which their clients or friends might attribute to personal fault and carelessness. And, note well, the more competent the practitioner is, the more disastrous the accident appears to him. And we know that operative accidents must happen and may happen in spite of all the precautions of the most skilful dentist.

Procedure in Case of Accident

What, then, should the dentist do if something of the sort happens to him? The first thing which he must do if he is faced with a complication which does not come within his competence, is to

consult the patient's own medical doctor. When this is done and if it is necessary, it is well to refer to a specialist. But, there is more. The dentist should, in every case, accompany the patient himself. And why? It is that the doctor who receives the patients finds a condition which the victim explains in his own way. If he does not know the dentist and even sometimes, when he does, he may make some unfortunate comment which we find in almost all cases gives birth to the thought of responsibility and litigation.

You will readily understand as I do that the case is entirely different when it is the dentist himself who calls on the doctor and who explains to the latter, in the presence of his client, that he, under the circumstances, prefers the competence of the medical man to his own. He explains that in the course of an operation there occurred an accident which one could not have foreseen as the result of a surgical intervention and that in all this if the dentist has been unfortunate, he has taken due precautions and is not responsible.

The doctor is not only flattered that the dentist had been sufficiently intelligent to consult him, but he has, at the same time, the immediate benefit of a logical and reasonable explanation. We find that following these contacts the doctor and the dentist, as they should, work together for the care of the patient and in the final analysis the latter is grateful to both of them and especially to his dentist who has not tried to assume useless risks and who has followed him attentively.

There is a psychological reaction on the part of a patient who is well treated. He himself appreciates the instinctive sentiment which causes one to try to keep away from an unpleasant situation. The attentive care, therefore, helps to disarm him, from more than one point of view. Strange as it may appear, I cannot recall a single case where a patient properly cared for by his dentist has ever thought of taking action after an accident. Doctor F. Bonnet-Roy, professor at the Medical School of Paris, an expert adviser to the tribunals of Paris, crystallizes the whole situation when he says:

> "I will not repeat the advice of Gerard Maurel to never allow an incident or accident to pass without telling the patient. I will add with frank insistence: 'Always make contact with the patient's doctor when a complication has occurred, for it is here, nine times out of ten, that lies the psychological drama which is the origin of lawsuits instituted against practitioners.' It is because there has been medical intervention in your absence and often without your knowledge, even if the doctor has not dropped some imprudent words, that the patient and those who surround him consider that your responsibility is engaged." In consequence, follow your patient. Do not be afraid to encourage him, to explain to him exactly how an accident of the nature can occur, in order that he may understand from the beginning that this is out of your control. He will suffer to see you in an unpleasant position, but if he has your care and has you at his side to encourage him, he will finish by having as much sympathy for you as he has for himself. You will never hear him speak of litigation. But, never, never leave your patient free to complain and find relief elsewhere. Obviously, this is because, before making up his mind to seek a doctor or another dentist, he will have suffered so much that your intervention at this later stage will probably be almost useless.

30 Years Liability

We have seen at the beginning of this address that the action against a dentist

is only prescribed after 30 years. This is the longest period known to law. I will take the liberty of repeating here a suggestion which I made on a previous occasion, to wit, that your Association should consider the opportunity of obtaining an amendment to the law in order that you may be relieved of this real hardship. It would be necessary to modify the Civil Code, or, possibly, bring in an amendment to your charter. You may ask yourselves why this was not thought of sooner. The answer is that the need has only recently begun to be fully felt. Today, in our population as everywhere else, recourse in damages has become more frequent. With industrial statutes the Workmen's Compensation Act, automobile accidents, etc., there is no family which has not, closely or remotely, been somehow involved in litigation. People today instead of being afraid of the courts have now realized that they are well received there and often carry out profitable transactions. It has been ascertained, not only in Europe and in the United States, but also in Canada, that groups of individuals band together to simulate accidents. With dishonest doctors, injuries are simulated and some innocent manufacturer, automobilist and possibly practitioner, may be called upon to pay.

Records

It has been ascertained that there are a certain number of dentists, unfortunately much more considerable than they may care to admit, who keep no record of certain operations. A stranger calls at your office, for example, for an extraction. He pays and goes on his way. In many cases no entry has been made. You can understand in what position this dentist would find himself if an action were taken some five or ten years later wherein he was accused of having provoked an infection resulting in serious consequences.

You will tell me that this is not probable. But the accident chasers we have here in Montreal have invented, holus-bolus, situations which are much more difficult to conceive. It would not be difficult for an individual of this type, gleaning information here and there amongst dental mechanics, discontented employees, etc., to obtain a list of patients and in this list find the necessary accomplices for a series of actions where the dentist would find himself obliged to pay, as he would have no evidence whatsoever which would permit him to deny the sworn statement. But it is not only these dishonest actions which have to be anticipated and which are the more difficult to defend when the lapse of time is longer, but there are also the 'bona fide' claims.

A Montreal doctor who operated on a child in Valleyfield, to insert a bone splint in the transverse processes to correct a deviation of the spinal column, was sued four years afterwards. He learned there that in opening the processes to graft the splint he had cut too close to the spinal cord, that the backbone had not resisted the tension, and that the child was paralyzed.

A dentist on Phillips Square was sued three years after he operated on a certain lady who at the time was leaving the country. She returned to Montreal to complain that all her ills and ailments from which she suffered were due to an infection for which he was blamed.

It is in cases such as these that the dentist's files are of paramount importance. Every operation, no matter how minute, should be registered. In this matter, the dentist and his assistants have something before them which serves to refresh the memory and recall the case. Otherwise, it often happens that if they can remember the face of the individual, they cannot even tell us what treatment he received. The files and cards become

doubly important when trouble is to be anticipated. In such cases, after having given all the necessary care, having seen the doctor, etc., prepare an elaborate and minute detail of the case: have it verified and initialed by your assistants and nurses and, better still, prepare it in collaboration. If ever you should need it, this record will be precious.

We ask every insurance agent who delivers a policy to give this advice to his dental clients, this not only for the protection of the insurer, but even more for the assured. We may again refer to Doctor Bonnet-Roy's recent conference, where we find that he again agrees with us on this point, when he says:

> "From another point of view, altogether practical, and which corroborates what was said a short time ago, always keep a file with precise observations. It is not as a dental specialist that I give you this advice, it is as a legal expert.

(In France the courts often refer cases of this nature to designated experts, viz: to dental professors, dental cases, to reputed engineers, technical lawsuits.)

> He continues: "When we, as experts, are called upon after several years to appreciate clinical cases, how can we arrive at a disinterested and impartial judgment—for the expert is not called upon to systematically agree or disagree with the doctor or the patient—How can we give information of value to the court if the practitioner does not bring us a coherent observation followed day by day? I have found myself in these circumstances on several occasions. It is difficult to defend a practitioner when, to meet the arguments of the family and of the patient, he cannot offer an observation taken day by day; this is indispensable and is the practitioner's principal element of defence when sued by a dissatisfied client."

Insurance Policies

There remains a last point to be considered. This is the insurance policy. I believe it is well to correct certain widespread errors relative to your contract of insurance. The policy which you receive stipulates that the insurer binds himself towards the dentist who is the assured, "to indemnify the insured against all damage up to the amount stipulated in the policy, resulting from the responsibility imposed by law upon him by reason of bodily injury, including death, which may result therefrom, at any time suffered during the course of the policy, in consequence of a negligent act, of malpractice or of fault either of the assured or of his assistant other than his partner."

Let us carefully examine this wording. The insurance company does not bind itself to pay the damages which you may have caused to a patient. It agrees to indemnify you should this patient, being able to prove that you are at fault, according to the principle already established, be in a position to obtain judgment against you condemning you to pay an indemnity. This is the same type of coverage which you receive when you insure yourself against the damage which you may cause to others when using your automobile. In order that the insurer may be called upon to pay, it is necessary that the victim be in a position to establish that you are at fault. If you have passengers in your automobile and another car runs into yours and kills your friends, your insurer has no interest in this litigation save to defend you if it is proven that the accident is due to the sole fault of the other.

But, what too often happens and what provokes litigation which is distressing for the assured himself, is that, following an accident which may occur in his office,

the practitioner immediately says! 'Don't bother about anything. I am insured. Your doctor will be paid. Your lost time will be reimbursed and you will receive compensation. Not only would an admission of this nature be sufficient to annul the policy if the insurer saw fit, but worse, and this is easy to understand, it gives the victim an appetite which he would never have had otherwise. The dentist has believed in good faith that this indemnity policy was there to serve as a gratuity to a patient, who, in the absence of all fault on his part, has suffered in his office. And what is more regrettable is that this policy protection which the dentist thought he had then serves, on the contrary, solely to activate litigation which has for effect to attack the reputation of the practitioner.

We have already seen that the patient who wishes to be reimbursed by the dentist must prove gross fault on the part of the latter. This necessarily eliminates a multitude of incidents which one might call the accidents of practice. The insurer, in establishing the premium which you are charged for your policy, takes into consideration that it is only in rare cases (for he would not give this contract to an incompetent doctor) that it is, I repeat, only in rare cases that the dentist would be held in law to pay an indemnity. Otherwise, the p r e m i u m would be several times the price which you are charged.

One cannot, therefore, reproach the insurer for refusing to make a gift to any person who has been under your care and for whom you have sympathy.

But the patient to whom you have revealed this magic word of insurance policy, will no longer wish to hear discussed principles of indemnity. He knows that you are insured, he believes that there is there an amount of money at his disposal which he may have as he sees fit. He will see his lawyer and inevitably you will be sued. I assure you that under such circumstances, you would much prefer never to have had a policy of insurance rather than to see yourself, as a result of your own declaration, sued before the courts.

Let us understand each other. I do not wish to suggest by this that the insurance policy is not useful—quite the contrary.—It is indispensable and no practitioner today who can obtain coverage should be without it. But what I wish to stress is that in the case of doctors, of surgeons and of dentists more than anyone else, it is indispensable that you do not reveal to the patient that you have the protection of an insurance policy. Not only do you in this manner dispel all the natural sympathy which the client has for you (and if he did not have esteem for you he would not have chosen you as his dentist) but more, you give him the erroneous idea that he is entitled to compensation and that all he has to do is to transact directly with the insurer.

But, if for your own protection you should not reveal to the patient the presence of an insurer, it is as important for you to immediately notify the company that something has occurred in your office. It is, moreover, stipulated as a clause of your contract that notice must be given immediately. I cannot too strongly insist on this point, and this exclusively for the protection of the dentist.

Here is what happens, and this applies principally to young dentists. He has tried to extract a tooth and a fragment remains in the gum, or else, he may have trouble with an impacted tooth. The patient goes on his way. The dentist has done all he could. He has taken all precautions in the world, but he has not successfully completed the operation. There is, however, no fault on his part. Or else, a patient may call two or three days after an operation to complain of a tenacious infection. Immediately notify

your insurer. It is not sufficient to call the agent to explain the case in your own way and have him tell you, perhaps, that the matter is of no importance and to call him back should your client communicate further with you. Immediately communicate with your company by telephone and in writing. You will have the satisfaction of receiving without delay the visit of an experienced investigator who understands these situations and who will immediately relieve you of anxiety. You will have the benefit of his experience and he will tell you what you should do to protect yourself against the possibility of litigation. And, what is more important, the case will not be allowed to become aggravated. If the conclusion is reached that there is error on your part which could constitute professional fault, the case will be quickly settled without complications, without publicity and without affecting your professional reputation.

If, on the other hand, the case is one where you owe it to yourself and to your insurer not to pay, the patient will be visited in a proper manner by a medical expert of reputation. Not only will he properly diagnose the case and advise your insurers and yourself, but he will be readily able to explain to all interested parties that a groundless claim would be profitable to no one.

Incidents may occur in a dentist's office as they do when an automobilist is driving his car, which appear so insignificant that one does not anticipate the possibility of any serious consequences. The dentist believes that mother nature will repair the break. Do not rely on this and do not believe that the insurer will be more reluctant to renew your contract simply because during the course of the year you have made reports of two or three incidents where you might anticipate trouble from a pugnacious patient. Give your notice in all sincerity and I can assure you that your status with your insurer will only be the better thereby. It is stipulated in your contract that the absence of notice annuls in your policy. It is therefore unnecessary for me to insist on this point.

As we are discussing the practical aspect, it might be well, in closing, to add that the insurance policy does not insure your assistants and partners. Bear this in mind as confusion sometimes occurs which leads to disappointment and regrets. In addition to your ordinary premium, you pay a supplemental charge to protect yourself against the responsibility which may result to you as employer or partner for the acts of those who are with you in your office. But, please note well that this extra premium does not protect your partners or employees, who are not insured unless there is a specific stipulation to this effect. It has several times occurred that the partners thought they were insured simply because their names were mentioned in the policy. I would suggest that all who can be interested should immediately verify the point in order to avoid disappointment.

In closing we may therefore sum up the whole by saying that the dentist must be held responsible for his professional fault within the limits which we have discussed and that he carries this responsibility for 30 years after the act which has given rise to the damage. He owes to himself and to his clients to follow the latter attentively every time an accident occurs. If he is insured, he must understand that the policy indemnifies only if there is fault on his part and that for his own protection the insurer should be immediately advised.

If I have been able to make this latter point clear, I believe that this conference will have had its utility in the peace of mind which a practitioner may achieve, to whom an unfortunate accident has occurred.

Practice Management

The Business Side of Dentistry

by PERCY B. D. IDLER, D.D.S., Chicago, Illinois

(Condensed from a paper read before the American Dental Society of Europe, held in Paris.)

I WANT to deal in fundamentals. I shall not speak of the clean hands and linen, tidy reception rooms and magazines of recent date, sterile instruments and good grammar. You are beyond these things.

What I say will be best adapted to the young men among us. A young man should invest himself in his community. Every community offers opportunity for such investment and without a signed note will pay interest. There are the lodge, the church, social groups, civic life and sports clubs according to your taste. This is not to get patients; it is to be a good citizen. A citizen owes more to the community he adopts than his taxes. He owes something of himself, of his personality, of his weight and strength for the community's sake. Patients are a natural sequence—your reward for citizenship.

Invest yourself in your practice. I assume that the dentist has *chosen* dentistry. He should say, "Dentistry is a matter of health, a physiological necessity, an aesthetic need. It is a part of mankind's program of well-being. It deserves my best."

Then there is the skill of dentistry that appeals powerfully to a man's best effort. So fine, so intricate, so exact is this skill that it calls for one's utmost and nothing less.

Next I mention the deeper and what seems the most difficult phase of our endeavour; the preventive and curative program of dentistry. Hard tissue lesions and soft tissue lesions, systemic causes and effects all come under the trained eyes of scholars today. And you are co-labourers with these men in your surgeries—you must be if you meet the demands of your time. The dentist, if his step is in time with that set by modern science dares not be ashamed of his name. His profession deserves his respect. But it is here, I fear, that we are at our weakest.

Now, let me suggest that you invest yourself in your organization. No man finally honours his profession with a full devotion who repudiates the co-operative service of his fellows. A man cannot be a lone wolf and serve his day and generation. Your organization it is that extends your arm, multiplies your skill, furthers your influence, gives you power, makes dentistry a force in the world. Every man owes himself to his profession as a whole. And there is no organization so rich that it does not need the poorest of us.

I conceive that a man's personality is his richest asset, that it is his to train, to cultivate, to increase its attractiveness and strength. As one cultivates the mind he may cultivate his personality. And this does not mean to follow a pattern. We are not intended to be alike, but are made to differ. "As the stars differ in glory," wrote one—but each star is a light. We differ to serve differently, but to serve well. We must choose what of our com-

posite selves to exploit to make of our complex whole an asset rather than a liability. There is no place where the plane of a man's thinking, living, aspiring show more plainly, can be as effective, as in a dental surgery. Dentistry is a personal thing, as personal as the dentist's personality.

The successful men I know use simple, old-fashioned, common-sense methods, but they studiously carry them out. There is no hocus-pocus, no medicine-man trickery in them. These men approach the patient with an air of competency, they make their financial arrangements clear and understandable, they undertake their work with the zest of honest enjoyment.

I am convinced that more men fail because of lack of system, because of murky ideas of what are reasonable fees; because, very often, they begin their work with no financial arrangement at all. They give no study to their enterprise but let it drift from patient to patient, from job to job with only passing analysis. A sound business system may be a means of general improvement to any neglected practice, but no system will function at its best without adaptation and analysis. If a business house must take stock and have directors' meetings to effect and continue efficiency the dentist must do no less. Time spent once a month in sitting with himself and the outspread facts of his concern, to scan successes and failures, causes and effects, is not lost time but time well spent. The cost of dentistry—from 40 per cent to 50 per cent—is too high to be guaranteed by merely nailing a horse-shoe over the door.

The business of dentistry differs from that of the draper only in the location of the term in our consideration. The draper puts money first; you put service first. But the fact remains that if you fail financially your door is closed as quickly as his. I insist that the ethics of dentistry begins at home. You carry the halo of your loved ones to your surgery to brighten the place and stimulate your labours. That halo fades when the practice fails.

It is said, "In the first ten years you build your practice; in the second, you enjoy it; in the third, you lose it." If that last is true—and I deny that it is—it would not be so bad if the preceding ten, the middle ten, had paid for themselves. The curse of the third decade is that the second has cheated you. Let me say, as softly, as sweetly, as musically as I can, "Be cautious about money. Demand what is yours because it is right. Do not be maudlin about money. Neither you nor your family can live without it. Anything so necessary to life must dwell in the heart of ethics."

Dentistry, as you and I practise it, is not a missionary enterprise. There is nothing inspiring, nothing noble, nothing commendable in the sight of a dentist leading his family "over the hills to the poor house."

I would urge every practitioner to get away from his practice betimes, to get systematically and frequently away from it. I have always been a great believer in vacations. I have educated my people to believe as I do, for if they are to get the kind of service they are entitled to I must be in condition all the time. You may not have as much money as someone else, but you will have better health, greater enthusiasm, more joy in living.

Have a hobby, a diversion, something to rest your mind from dentistry, freshen you, vitalize you—give you a new edge for the job when you go back to it.

When you leave the surgery for recreation, leave it, body and mind and soul. Then, when you go back to it you will take more of each and find your labour is minus drudgery, your work free from toil.

Now, and finally, I wish you success. And as I say it, I hardly know what it is I wish. Success to one is not success to another, I know. It varies with your location, your opportunities, your ideals. Dr. Kells defined success in "The Dentist's Own Book." He said that if, "after a life spent in honest endeavour and consistent and constant application one has been able to make some provision for that fateful 'rainy day,' has gained the respect and confidence of those with whom he has come in contact, and best of all has won and still holds amongst his fellow-members of the profession the reputation of fair dealing and honesty of purpose," that is success. If it is not success as you see it, I wish you the fulfilment of your every reasonable hope and the deep content that comes from a life well lived. — *Dental Magazine and Oral Topics, January,* 1939.

Efficient Telephone Service

LIKE everyone else, the dental practitioner finds it necessary to purchase various types of protection. At one time adequate life insurance and protection against loss by fire was deemed sufficient. With the coming of the automobile and other modern innovations this coverage was entirely inadequate. The dentist now purchases accident, liability, malpractice, theft and numerous other forms of insurance.

Important as this protection is, there is none more essential, so far as the dentist's practice is concerned, than efficient coverage of his office telephone. We have a feeling that if it were possible for statisticians to obtain the figures, the patients lost to dentists, because there was no one to answer their telephones or the calls were inadequately handled would run into thousands of dollars.

The young dentist, in particular, frequently fails to protect himself against the loss of calls, not appreciating the important role that the telephone plays in modern practice. Dentists frequently employ in their homes maids who are not capable of intelligently handling calls. Either they do not respond in a friendly manner or do not accurately record the messages left for the doctor.

If the dentist cannot afford an office assistant and he wishes to adequately protect his business, he should make arrangements to have his telephone efficiently covered. Needless to say, we strongly recommend that every dentist employ an office assistant who answers promptly and is friendly to all who call.—*Journal of the Second District Dental Society of New York, April,* 1939, *per North-West Dentistry.*

Helpful Suggestions

PROMPTNESS in meeting people. I find people waiting in the reception room, and professional men breaking the appointments while the patients are there. I find many men who have a studied care of keeping people waiting so they will think they are very busy. When people keep their engagements they like to have you as near on time as possible. I am sure most of us try, but it would be well to re-address ourselves to punctuality because when people find we are a bit derelict in keeping these appointments, perhaps they will wait a little over long in coming in and disrupt your schedule. I would banish the word

"appointment" from the office. My assistant and I will never give an appointment to a patient. We would offer them a reservation, and would reserve time for them. I find that patients take this suggestion most kindly. And when they do, be sure of the time the patient reserved, that you reserved it for him and not for somebody else.—*Louis Hill, D.D.S., Los Angeles, Cal., in N.Y. Jour. of D.*

Ability of Dentists to Meet Obligations

IN 1936, the Detroit Institute of Technology conducted a survey among credit men of that city in an effort to determine the relationship between occupation and paying habits or ability to meet obligations.

Occupations were rated on a scale from one to one hundred.

The following occupational rating list is of interest to the dental profession in evaluating a patient's ability and willingness to pay for services.

1. Railroad Employees	90.8%
2. Office Clerks	88.2
3. Nurses	87.5
4. Accountants	85.8
5. Teachers	85.2
6. Municipal Firemen	84.1
7. Municipal Street Railroad Employees	84.0
8. Mail Carriers	81.0
9. Municipal Policemen	80.5
10. Skilled Male Factory Workers	79.6
11. Retail Grocers	79.1
12. Retail Butchers	78.9
13. Retail Bakers	76.1
14. Plumbers	75.2
15. Clergymen	74.6
16. Retail Store Salesmen	71.5
17. Physicians	69.8
18. Dentists	69.5
19. Unskilled Female Factory Workers	68.8
20. Farmers	68.7
21. Gas Station Attendants	67.8
22. Unskilled Male Factory Workers	65.8
23. Bricklayers and Mason Workers	65.4
24. Drug Store Employees	65.1
25. Auto Mechanics	64.0
26. Carpenters	60.2
27. Domestic Servants	55.2
28. Hotel Help	54.1
29. Lawyers	53.9
30. Barbers	53.6
31. Miscellaneous Workers	53.4
32. College Students	42.4
33. Painters and Decorators	40.7
34. Restaurant Help	34.8
35. Artists	32.2
36. Entertainers	29.3
37. Cab Drivers	28.8

Dentists and physicians, it will be noted, are rated a little over 69%. This probably is the result of a situation where the public takes advantage of leniency of credits and defers payments to their physicians until everyone else has received his due share of compensation.

Dentists whose practices are operated upon a budget basis with adequate care of credit extension to patients will find themselves far removed from the low classification. The higher rating can come about only through cautious credit control. — *From The Dentist and His Control of Practice, by S. Joseph Bregstein.*

Human Life Versus Wild Life

ONE of the most distinguishing differences between human life and the life in the wild is the fact that wild creatures appear to be always in training. They keep regular hours. They insist on certain periods, day and night, for rest and relaxation. They play. Under normal conditions, no one of them is a glutton. If one happens to get the least bit off condition, he at once refuses to eat. The result is that wild birds and animals are remarkably sane, poised, and natural. At any moment they are ready for an emergency.—*Archibald Rutledge in "Nature Magazine."*

The Forum

• LEUKOPLAKIA AND ALLIED MOUTH CONDITIONS

by DOUGLAS QUICK, M.B. (Tor.), F.A.C.S., F.A.C.R., New York City.

(*Condensed from the Canadian Medical Association Journal, March, 1939.*)

CHRONIC irritation is the one factor about which most data are available. The student interested in cancer development can always study these simple changes directly and with profit; the clinician interested in cancer prevention can reduce the incidence of mouth cancer by eliminating these precursory changes while they are still benign and apparently insignificant.

It would seem best to make brief reference to a number of changes of local origin which need but a word to remind us of the necessity for constant vigilance in small matters.

Many have their inception in early childhood. The irregular alignment of teeth which permits of rubbing of mucosa over sharp corners or frequent biting of the membrane results ultimately in hypertrophy with ultimate erosion of the surface. Once erosion has occurred, infection permeates the tissues locally. Occasionally, mild prolonged irritation does not produce erosion, but instead a marked hypertrophic fibrosis beginning in the submucosa and extending deeper until a true fibroma has developed. The same type of irritation at times produces a varicosity of a small group of vessels, resulting in a submucous angioma. Such a process, once started, gains momentum under its own stimulus. All of these simple changes are today preventable by taking advantage of the services of the competent orthodontist during childhood.

In the adult similar changes are brought about by dental neglect. Rough edges from worn-down occlusal surfaces or neglected cavities cut into the mucosa. Fillings and metal dentures become rough on the edges unless watched. Many partial dentures are too complicated, and the same is true of many piece-meal restorations where one bit of work is added to another. The removable prosthesis is usually preferable to the fixed appliance. Full plates are usually worn far too long. The bones of the jaws and face change in shape, but the plates do not. Hence the mucosa supporting the dentures suffers until often the first intimation of trouble is the pain of a fully developed growth. Many of the cheaper plates are made of an inferior quality of rubber carrying chemical impurities. Some of these impurities, notably arsenic, are well recognized carcinogenic agents.

The idea of mucous membrane damage by electrical current stimulation has probably been over-extended. There is no doubt but that it does occur and that it is a real factor in setting up chronic tissue change of a dangerous character The damage must be at the exact point where these two metals and the mucosa come into contact.

Many jaws are not sufficiently developed to permit of adequate space for the third molar. Consequently, its presence results in chewing of the membrane or pressing deeply into it at two points, in front of the ascending ramus of the mandible. These are frequent points of origin of cancer.

The safety of the oral mucosa from chronic inflammatory changes with gradually increasing fibrosis, hyperkeratosis and ultimate erosion, necessitates a full

complement of smooth teeth, in proper alignment, and without intervening vacant spaces.

Local sepsis of a chronic character is also an underrated menace in its probable relation to mouth cancer. Pyorrhea goes hand in hand with neglect of dental care. A study of tissue specimens from chronically infected gum margins shows all of the changes from simple hypertrophy to beginning downgrowth of the basal layer in an irregular papillary manner and ultimately to fully developed cancer. It is my impression that pyorrhea with its train of progressive tissue changes is too often regarded as entirely a local problem.

In cancer practice it is extremely common to see patients complaining of abnormal sensations, usually of a burning or tingling character, in the mouth. They usually have definite mucous membrane changes, either generalized or at certain localized points. One of the most common local points is the patch of lymphoid tissue on the lateral border of the tongue at the base of the anterior tonsillar pillar. It will appear slightly more prominent than the corresponding area of the opposite side. It may be moderately reddened. The gross change is slight, and the patch is not usually painful to palpation. If, however, such an area be removed and careful histological examination made, it is surprising to note how closely the changes may come to true neoplasm. This particular area is one of the most frequent sites of cancer in the mouth.

Leukoplakia is popularly regarded as a precursor of cancer. However, the chronic ulcer from local trauma is apt to be far more dangerous than the average patch of leukoplakia.

Smoking has long been regarded as a major cause of many pre-cancerous changes, including leukoplakia. However, it is the excess of smoking for any given individual that does the harm, rather than just smoking in general.

Probably more leukoplakia is of non-luetic origin than otherwise.

It is being noted that early non-specific leukoplakia and many other of the non-leukoplakia symptoms producing local irritations in the mouth are due to a dietary imbalance, or, to be more exact, a dietary deficiency. Correction of this is followed by prompt improvement.

The fact that mouth symptoms in the form of tingling sensations and atrophy of the mucosa over the tip and adjacent dorsum of the tongue are among the earliest symptoms of pernicious anaemia has raised the question of a possible relationship of many oral mucous membrane changes, leukoplakic and otherwise, with a liver deficiency. Vigorous therapy directed toward the deficiency results in improvement of a character often spectacular.

I regard as potentially pre-cancerous any gross localized tissue abnormality, erosion or ulceration, which has resisted ordinary simple measures of treatment for over a month. Clinical experience teaches that many such lesions should not be accorded even a month of grace. Biopsy should be resorted to promptly and frequently.

Once the local lesion is proved to be non-malignant, its local removal or destruction is adequate local treatment. The local excitant of irritation should be corrected or removed, whether it be an offending tooth, an imperfect or ill-fitting prosthesis, or excessive smoking.

The deficiency diseases require aggressive therapy, dietary regulation, liver therapy, compensation of vitamin deficiencies, especially B^1 and C, and nicotinic acid, B^2 and ventriculin in those showing an achlorhydria. Those showing a special tendency toward gastro-intestinal toxicity should receive particular attention with suitable agents.

Radium and x-rays are not suitable agents for the eradication of leukoplakia, except in a few instances of extremely localized manifestations. With generalized leukoplakia, and beyond the constitutional therapy briefly outlined, it is best to keep the patient under careful routine observation and resort to local measures only when a localized area tends to change its character. For this a nicely adjusted bipolar cutting current of low intensity is an excellent means of shaving off the questionable area, leaving a minimum of scar.

• INCOMES OF DENTISTS IN U.S.A.

by HERMAN LASKEN, National Income Section, Division of Economic Research

(*Condensed from Survey of Current Business, April, 1939*)

THE following is a summary of the incomes of practising dentists in the U.S.A. conducted by the National Income Section of the Bureau of Foreign and Domestic Commerce with the co-operation of the American Dental Association and the assistance of the Works Progress Administration.

Questionnaires were addressed to 71,692 dentists, of whom 43,711 were members of the American Dental Association.

The average net income from professional services, including professional salaries, of practising dentists in the United States in 1937 was $2,914. This compares with averages of $4,273 in 1929 and $2,251 in 1933.

A study of the depression's effect on incomes in dentistry shows that less than one-fifth of the returns reported incomes of less than $2,000 in 1929, while more than half were below that level in 1933, and 37 per cent were still below that level in 1937. Whereas only 5 per cent reported incomes below $1,000 in 1929, 20 per cent were below that figure in 1933. Considering the higher levels of income, only 6.5 per cent of the total reported incomes in excess of $5,000 in 1933 as compared with almost 30 per cent in 1929. Incomes in excess of $10,000 were reported by only six-tenths of 1 per cent in 1933, as compared with almost 5 per cent in 1929.

The distribution of returns by type of practice shows that the 2.5 per cent of the practising dentists who were wholly specialized received an average income of $5,451 in 1937, which was almost 50 per cent more than the average income reported by the 5.9 per cent of dentists who were partly specialized, and almost double that of the general practitioners who represent 91.6 per cent of the total number of active dentists.

More than 13 per cent of the wholly independent practitioners reported incomes below $1,000, as compared with less than 10 per cent of the part-salaried and only slightly more than 1 per cent of the dentists who worked exclusively for a salary. An income of less than $1,500 was reported by one-fourth of the non-salaried, one-fifth of the part-salaried, and one-tenth of the 100-per cent-salaried dentists. While the wholly salaried dentists reported a relatively small number in the very low classes of income, they did not report any incomes above $20,000, as did the non-salaried and part-salaried groups. The 100-per cent-salaried dentists reported the smallest percentages of total at all income levels below $3,000 and at all income levels above $5,000, indicating a higher concentration of numbers at the central values.

Average incomes show a rapid increase during the first 7 years of practice, then level off to a maximum during the second decade of practice and decline slowly thereafter. The data indicate that during the period from the seventh to the twenty-ninth years of practice average incomes exceed the average for the profession as a whole.

Independent practising dentists re-

tained 56 per cent of their gross income as net income in 1937. The effects of the fixed costs of practice (such as rent, and depreciation on equipment) can be seen from the low ratios of net income to gross income in the lower income brackets. Thus, the dentists reporting gross incomes of less than $500 showed an average net loss for the year; those whose gross incomes were between $500 and $999 showed an average ratio of net to gross of about one-third. There is a further sharp increase in the ratio for the gross income group of $1,000 to $1,499, with their net averaging half of their gross income. From this point forward on the gross-income scale, the ratio of net to gross increases slowly to a maximum of 0.59 between $3,000 and $5,000. There is little variation in the ratio after this level is reached, expenses increasing in about the same proportion as gross income.

• PRECAUTIONS IN GENERAL ANAESTHESIA

THE need for exercising all precautions necessary for safety is impressed anew with each instance of an unfortunate aftermath to the application of a general anaesthetic for a dental operation. E. A. Rovenstine, M.D., Professor of Anaesthesia at New York University College of Medicine, spoke recently on "General Anaesthesia, its Application in Oral Surgery," before the Section on Oral Surgery.

An ambulatory patient does not necessarily mean a patient in good physical condition; the need for exercising care is therefore, self-evident. The choice of an anaesthetic in oral surgery, as for surgery elsewhere in the body, should be dependent on the physical condition of the patient and the type and duration of the operation. New anaesthetics are frequently more toxic than those ordinarily employed and should be avoided. Nitrous oxide anaesthesia has become standard in dental practice because of the safety in its use. Its effective action is due to partial asphyxia with the blood oxygen tension below the physiological level, and "oxygen want" of the body tissues the important factor. Nitrous oxide should not be abused, however, because of a possible residual damage to nervous tissue with personality and intelligence changes.

Cyclopropane anaesthesia does not cause asphyxia and cyanosis for it can be given with a sufficiently high concentration of oxygen. There exists a smaller range or zone between respiratory failure and circulatory failure in the use of cyclopropane than with ether, and has another real danger in its explosive nature. Vinithin is recommended for use in short operative procedures if care is taken of its instability, its explosiveness and its cauterizing nature. Over one hundred and fifty barbiturate derivatives are marketed for use in premedication or to yield complete anaesthesia, but as a group barbiturates show wide species and patient variations. In use for premedication note should be taken of individual variation with the use of the specific drug, that absorption is affected by food, that barbiturates may be hypnotics but are not analgesic, and as respiratory depressants are not indicated in oral surgery. It is ideal during an operation to have a conscious co-operative patient relieved from pain. Analgesia may be obtained with 30-35 per cent nitrous oxide, 25-35 per cent ethelene and 4-6 per cent cyclopropane. A narrow zone exists between the wholly conscious state and complete anaesthesia.—*Rudolph H. Pelzer, N.Y. Jour. of Dentistry.*

Happiness, I have discovered, is nearly always a rebound from hard work.—David Grayson.

PRINCE EDWARD ISLAND

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Canadian Dental Laws

In an excellent treatise entitled "Law and the Dentist" by F. Philippe Brais, K.C., of Montreal, appearing in this issue of the Journal, the writer points out that in the Province of Quebec if you strike an individual with your automobile he could not sue you after the expiration of one year from the date of the accident, but, if he should be injured while being treated by you in your professional capacity he would have thirty years in which to demand damages, which is the longest period known to law. He suggests that the Dental Association should consider having the law amended in this respect in order to be released of a possible real hardship. He points out further that people today, instead of being afraid of the courts, have now realized that they are well received there and often carry out profitable transactions as a result of this knowledge. This warning should certainly not go unheeded by the dental profession of Canada.

According to the Dentistry Act of the Province of Ontario a dentist is not liable to any action for negligence or malpractice unless such action is commenced within six months from the date when in the matter complained

of such professional services terminated. This same law appears in the new dental Act of British Columbia.

In Nova Scotia suit for malpractice cannot be instituted after a period of one year. In Manitoba the limit is two years. In Saskatchewan there is no provision in the Dental Act covering the period when an action may be brought for malpractice against a dentist, and in this province it is necessary to fall back upon the general Limitation of Actions Act by the terms of which any action for malpractice must be brought within six years from the time the last service was rendered in respect to which it is claimed that the dentist has been guilty of malpractice. The condition in Prince Edward Island is the same as in Saskatchewan, that is, action can be taken any time within six years. However, in this province, up to the present time, there has never been an action taken against a dentist or a lawyer, although there have been cases against medical practitioners. The same law probably prevails in Alberta, although a prominent lawyer of that province states that action for malpractice might come under a clause in the law which would limit the time to two years. In New Brunswick the Dental Act does not cover the problem of malpractice but the Medical Act does do so, with the limitation of one year in case of suit. In the case of the dentist the time limit is probably six years.

These variations in the dental laws of Canada give us food for thought. It would seem the part of wisdom for the dentists of most of our provinces to make a thorough study of their provincial dental laws and take immediate steps to have them brought up to the highest possible standards. This problem of suing a dentist for malpractice has simply been used as an illustration to show the weakness in the dental laws of many of our provinces. There are undoubtedly, many other clauses in these laws which would bear careful inspection.

BOOK REVIEW

Dental Caries: Compiled for the Research Commission of the American Dental Association by the Advisory Committee on Research in Dental Caries: Daniel F. Lynch, Chairman: Charles F. Kettering, Counsellor: William J. Gies, Secretary: 190 pages: May be secured from Dr. Daniel F. Lynch, 2651 16th Street, N.W. Washington, D.C. Cheque or money order must accompany requests for volumes: Cloth $1.00.

This book is a compilation of the opinions of 195 living investigators, representing 25 countries. For the past year and a half this Committee of the American Dental Association has been actively engaged in gathering this material and it is the hope of the Committee that it will be a model for similar works in other fields of dental research.

In this book the Committee has attempted to summarize the findings and conclusions on the cause and control of dental caries, which, in their judgment, are the enduring results of the efforts and experiences of the leading, active observers and investigators in this field of research, in all parts of the world.

This book should prove most valuable to those who are giving any thought to the cause and control of this most prevalent of all diseases.—*M. H. G.*

CORRESPONDENCE

Jell-O Company,
c/o C.K.Y. Broadcasting Studio.
Dear Sirs:

Several dentists have telephoned me today, all expressing much resentment at your radio program of last evening. One dentist said that several patients had spoken of it and said they were afraid to sit in his chair after listening to the Jack Benny program.

Without a healthy mouth it is impossible for anyone to be assured of general good health. The chief thing that keeps men and women, and children also, from going to the dentist and securing a healthy mouth is the fear of pain.

Modern dentistry has developed to the point where dental operations can be performed with little or no pain and members of the dental profession, as well as those of other welfare organizations, have spent many thousands of dollars and sacrificed an untold number of hours in trying to combat this fear problem, in the interests of public health.

A program such as was sponsored by your Company last evening neutralizes this splendid effort on the part of these health workers most effectively and is to be very much regretted.

During the past few months other large companies as well as magazine publishers who have been guilty of indulging in this most questionable type of humour, have agreed to use more care in future and co-operate with us in encouraging the public to seek health, rather than to frighten them away from obtaining greatly needed service. We trust that your Company will also agree to co-operate with us to this extent.

Your products particularly are presented to the public on a health basis and the goodwill of the physician, the dentist and other health workers would, we think, be valuable to you.

We sincerely trust that you will give this matter your most serious consideration in the interests of national public health as well as in the interests of your own products.

(Signed) M. H. GARVIN.

Reply to above letter

To the Editor, Journal of the C.D.A.:

Your communication of November 13 addressed to Radio Station CKY has been read by the several executives here connected with the Jack Benny program and all of us are indebted to you for the frank expression of opinion which you have sent us.

We would like to assure you that we and Jack Benny are deeply concerned when anything in the show offends any of the listeners. We hope that your members realize that both he and ourselves highly respect your profession and that no offense was intended. Our feeling was that the skit was so deliberately exaggerated as to be entirely incredible to our listeners. We have received some letters, even from dentists, which indicate that the program was very generally accepted in this spirit.

Your letter is being forwarded to Mr. Benny and we are confident that he will be most careful in the future to say nothing which could in any way reflect on the profession. Any possible mention or reference to the dental skit would, in our opinion, serve to remind listeners of the incident—and I am sure that you prefer the whole matter be forgotten.

Thank you again for writing to us, and we trust that you will continue to listen to and enjoy the JELL-O Show.

(Signed) ROBERT JONES,
Promotion & Advertising Manager
for General Foods Limited.

November 27, 1939.

EDITOR'S NOTE:—*We are glad to publish the gracious reply of the Advertising Manager of General Foods Limited to our letter written in criticism of the Jack Benny program of November 12. The surprising thing about this reply is that any dentist could possibly have written expressing approval of this particular program as this shows a complete lack of appreciation of what is being done in the interests of public health and of the dental profession. This Company should have received hundreds of letters from dentists all over Canada in criticism of this program. This is not the entire responsibility of any officer of the Canadian Dental Association but is a matter which affects every dentist in Canada. In the interests of public health, of our dental profession and of every practising dentist we would urge our members to write at once to any Company or Publisher or Radio sponsor who offends in the matter of instilling fear into the minds of the public at the mere thought of entering a dental office.*

NEWS FROM THE PROVINCES

MANITOBA:

Dental Corps

Lt.-Col. W. W. Wright, District Dental Officer for M. D. No. 10, has his men working at top form getting the troops of his district fit for the army rations of active service overseas. Already, Dr. Snyder, of Kenora, and Dr. Strachan, of Virden, have departed and others are replacing them here. Along with the two officers just mentioned Drs. J. E. Abra, N. S. Bailey, D. M. Boyd, G. A. Buchanan, S. E. Greenberg, A. I. Hamilton, D. B. McMillan, C. H. Moore, Reeve Morrison and G. E. Schragge, are in uniform, with the other ranks; a total of about forty. This is some change from the summer of 1915 when the dental corps was about three months old and there were 15,000 troops at old Sewell Camp with but one dental officer, one sergeant and one private to look after their dental services. Lieut. Percy Johnson, formerly of the Johnson Dental Supply Company, is quartermaster of the Dental Corps.

In 1937, when Dr. Fred Warriner was Mayor of Winnipeg, and it looked as if there might be fighting, a chap named Zinc wrote Mayor Warriner offering his services to the Dental Corps. The Mayor forwarded the letter to Col. Wright who kept the letter on file and now after two years Zinc has been called up. He has the distinction of being the first volunteer. The son of one of our local dentists is also in the Corps and stands six feet, eight inches in his size 15 military boots. If he ever gets the chance he sure can look down in the mouth.

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Winnipeg Dental Nurses and Assistants

The Winnipeg Dental Nurses' and Assistants' Association held its monthly dinner and meeting on December 4.

The guest speaker, Mr. A. Shaw, of Shaws Laboratory, gave an illustrated lecture on "Vitallium."

A presentation was made to Miss K. Ray who leaves to be married.

Four new officers were installed to fill recent vacancies: Vice-president, Miss E. Schroeder; Secretary, Miss J. Gordon; Social Convener, Miss A. Bridgeman; Sick and Visiting, Miss Jackson. D. A. WARREN.

ONTARIO:

Dr. William J. Kerr Passes Away

Dr. William J. Kerr, esteemed citizen and much loved dental colleague, passed away on December 31st at the age of 41.

For 19 months he battled without avail against an infection of the streptococcus haemolyticus type, acquired accidentally in the routine of his practice. Every care and attention from a host of competent medical advisors and consultants failed to check successfully the progress of the malady.

William J. Kerr, D.D.S.

So the end has come to the life of a fine gentleman of dentistry at the peak of his career. One who was efficient in his work, skilful, possessing rare judgment and understanding; he was sympathetic, kind and generous; he had a great heart. Of him Dean Arnold Mason remarked, "No matter what fine tribute or eulogy the minister pays at his funeral it will be true of 'Bill' Kerr."

"Bill" Kerr, as he was known to his many

friends, and he had a legion of friends, made many achievements and had many fine qualities in his nature. He was chairman of the Academy of Dentistry Welfare Committee since 1936. He always had time to assist in rendering dental service for those a little less fortunate — for many years he was visiting dental surgeon at the in-patient Dental Clinic at the Toronto General Hospital.

He was an enthusiastic sportsman. Residents of Southampton and Georgian Bay knew him as an arden angler. He was a member of the Caledon Trout Club and the Toronto Anglers' Association and he greatly enjoyed the fellowship of friends "out fishin'."

He will always be remembered best perhaps because of his geniality, his unselfishness and devotion to the tasks that duty called him to. He enlisted in the Royal Air Force in early spring of 1918. He has given of his time and talents generously in promoting the advancement of his chosen profession. He was active in many associations and was president of the Toronto Academy in 1935.

He has held memberships in the Toronto Progress Club, Optimist Club and Young Men's Canadian Club and Masonic fraternity. He was active in his church life for some time serving as an official.

With all his activities his greatest love was his home and those in it. His wife, formerly Mabel M. Martin, whom he married in 1926, and his four sons, David, Johnny, Jimmy and Billy, were ever the objects of greatest affection. His physician and friend remarked in conversation, "He battled so hard to get well, not for himself so much but for those he loved at home."

The many friends who have called at the family home to pay their respects together with the profusion of floral tributes symbolizes the sympathy extended by the community and friends to those who are bereaved.

Those who mourn as well as the immediate family are his mother, Mrs. Annie Kerr, his sister, Mrs. G. L. Wright of Winnipeg, and his aunt, Miss M. L. Hadden of Toronto.

T. R. M.

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New Secretary for Dental Board

On May 1 next Dr. D. W. Gullett, of Picton, Ontario, will take over the duties of Secretary to the Board of the Royal College of Dental Surgeons of Ontario.

Following overseas service with the 73rd Artillery Unit of Kingston and the 2nd Canadian Tank Corps in the Great War, Dr. Gullett was graduated from the University of Toronto in 1923, following which he established his practice in Picton. He was a member of the Picton Public School Board for many years and was its chairman for a term. He is a Past Master of Prince Edward Lodge, A.F. & A.M., Past President of the Kiwanis Club and Tennyson Club, a member of the Library Board and Hospital Board for several years, a member of the Session of Picton United Church and treasurer of the Church for three years.—*Picton Gazette.*

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Ottawa Dental Society

The Ottawa Dental Society held its opening fall meeting on November 20, with a record attendance of sixty-nine. Dr. Kreutzer, of the R.C.D.S., Toronto, was the speaker and gave a splendid address on "Oral Diagnosis," paying particular attention to examination of the saliva. Colonel Frank Lott, head of the Canadian Dental Corps, with some of his local officers, was present and displayed the new dental outfit of the Canadian Dental Corps, and gave a description of its uses and adaptabiilty for war purposes.

•

Toronto Dental Nurses' and Assistants' Association

The Toronto members met together Monday evening, Dec. 4th, at the Royal York Hotel, with the President, Madge Buik, in the chair. About fifty members answered the Roll Call, many of whom were seen to be knitting. Great preparations are being made for Dec. 8th, when the presentations of the "Knitters and Donaters Club" are to be made to the soldier boys. It is the plan of the members to keep in touch with these boys while they are overseas.

Following the business of the evening, Mildred Brown introduced Dr. Roy Ellis of the Faculty of Dentistry, University of Toronto, who gave a most interesting talk on Australia with three reels of movie films of his recent trip there. A hearty vote of thanks was tendered by Marion Edwards.

It was the unanimous vote of the meeting that Mrs. J. C. Nix (Dorothy Collet) now of South Porcupine, be made an Honorary Member of the Association.

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Brant County Dental Society

An interesting and successful meeting of the Brant County Dental Society was held November 22, when Dr. J. H. Ante, of the University of Toronto, was the guest clinician. Dr. Ante's subject was "Full Denture Prosthesis," illustrated by coloured slides. Dr. J. H. Moyle presided over the gathering.

•

London Chapter

The regular monthly meeting of the London Dental Nurses and Assistants was held on Monday, Nov. 13th, in the office of Dr. Fred Kennedy.

The speaker for the evening was Miss Davis, formerly of the St. John's Ambulance Corps, who gave a splendid talk on "First Aid". Refreshments were served and the meeting closed.

•

Essex County Dental Assistants' Association

The regular meeting of the Essex County members was held in the Canada Building, Windsor, with Miss Dorothy Scott presiding. At the business session an important letter from Ruth Garland, Port Arthur, was read in connection with a song contest to be held at the Ontario Convention in May. A letter from Margaret Aiken, Toronto, the new Provincial Finance Convener, was also received about the membership drive fund.

At the close of the business Dr. A. J. Norman was introduced and gave a most interesting and inspiring talk on "The Present Status of the Dental Assistant".

•

Thunder Bay Dental Nurses' and Assistants' Association

The regular monthly meeting of the Thunder Bay Chapter was held Monday, Nov. 13th, in Dr. Quackenbush's office. The business part of the meeting was conducted by the President, Miss Ruth Garland. The minutes of the last meeting were read and nine members answered the Roll Call. The report of the Fifth Annual meeting of the Montreal Dental Nurses and Assistants was read also a letter from Miss Dorothy Scott of Windsor, telling of the Poster Contest which will be held at the Ontario Convention in May.

•

The December meeting of the Thunder Bay members was held in the office of Dr. Ritchie, with ten members present. A new member was introduced—Miss Helen Isola—and the Nurse's pledge was read by all the members. A social evening followed.

QUEBEC:

Nominal Roll of Officers No. 4 Company, C.D.C.

The following is a nominal list of officers of No. 4 Company, Canadian Dental Corps with their present addresses as of December 18, 1939:—

Major F. W. Saunders, D.D.O., M.D. No. 4, Room 719, Sun Life Building, Montreal; Lieut. Gerald Franklin, Lieut. Lorne F. McRae and Capt. J. P. Lantier, No. 1 Divisional Company, C.D.C. (CASF), Base Post Office, Canada; and the following officers all reside at 1035 St. James Street, Montreal: Lieut. Gerard Baillargeon, Lieut. Maurice Boulet, Capt. Henry Ross Cleveland, Lieut. Samuel Cripps, Capt. Harold V. Driver, Lieut. Francis A. Edward, Lieut. Thomas I. Guilboard, Capt. John A. Kerr, Lieut. Leonard E. Kent, Rene Lavalee, Lieut. Pierre R. La Salle, Capt. Roger E. McMahon, Lieut. L. J. Perron, Capt. Herbert D. Pennell, Lieut. Lucien P. Reeves.

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Dental Patient Given Damages

Damages to the amount of $500 were awarded to Paul St. Pierre on November 25 against a Montreal dentist. The action arose out of work done by the dentist seeking to remove a piece of root believed to be in the patient's jaw, but which radiographs taken at Notre Dame Hospital ultimately showed to be non-existent.—*Montreal Star.*

BRITISH COLUMBIA:

Vancouver Dental Society

"Balancing the Occlusion by Selective Spot Grinding and Partial Reconstruction of the Occlusal Surfaces of the Natural Dentition" was the subject ably presented by Dr. William R. Scott, at the regular monthly meeting of the Vancouver Dental Society on December 5.

Dr. David W. McLean prescribes balanced occlusion as follows: "Each cusp and fossa must satisfy four positions; centric, right lateral, left lateral and protrusive and, of course, the paths intervening between them.

By means of slides, both drawings and x-ray films, this procedure was clearly demonstrated by Dr. Scott. He stated that too little stress on a tooth is just as harmful to the periodontal tissues as too much stress. The rule to remember in grinding is: Plane the mesial of the upper and distal of the lower teeth in centric, while in the lateral position the buccal of the upper and the lingual of the lower should be ground.

During the discussion the importance of tactile pressure was emphasized, that is, the placing of the finger on the tooth during the different movements of the jaws, when any undue movement or interference of the teeth can be definitely felt. This is considered a more accurate procedure in conjunction with the carbon paper than if the paper only were used, as the paper only shows the point of interference.

In grinding it was pointed out that only fine small pointed stones should be used and the planes, sulci and grooves should be placed in harmony with the environment. If the cusps are high and sulci deep then reproduce them but do not reproduce high cusps and sharp incline planes in a mouth that has teeth with low cusps and shallow sulci.

Milling in by means of abrasives has no place in balancing the occlusion in a natural dentition because such abrasives will only destroy the incline planes and thus close the bite which is equally as serious as the over opening of it.

Tooth form plays a very important part and should be accurately reproduced. The carving of plaster teeth is greatly recommended to those who do this type of reconstruction. The knowledge so gained will amply repay one for the effort expended.

Dr. W. J. Lea told of the new amendments that were passed at the recent sitting of the provincial House. A full report will be given later.

ALBERTA:

Director of Dental Services

The appointment of Dr. Lorne V. Janes to the position of Director of Dental Services for Military District No. 13 (Province of Alberta), meets with the approval of the dentists of Alberta.

Major Janes served with the Dental Corps in the last Great War and since that time has carried on a successful practice in the City of Edmonton, specializing in porcelain work. His appointment to this position with Headquarters at Calgary assures a first-class unit of this important branch of military activity.

Recently Major Janes was the guest of the Calgary Dental Society at its regular meeting, at which he gave an interesting account of the proposed activities of the Dental Corps in Canada.

SASKATCHEWAN:

Moose Jaw Dental Society

At the November meeting of the Moose Jaw Dental Society, held in the Grant Hall Hotel, the President, Dr. A. D. Leask, was absent owing to illness, and the chair was taken by Dr. L. F. Hall, Vice-president. General business occupied the full time of the meeting.

At the December meeting of the above Society, the President, Dr. Leask, was in the chair. After the business session Dr. F. C. Harwood gave a clinic on "Synthetic Porcelain."

Dental Nurses' Association

The regular monthly meeting of the Regina Dental Nurses' Association met in supper session at the Sandwiche Shelfe on December 4, later adjourning to the offices of Drs. Weicker, Gemmill and Kennedy, where Dr. H. J. Kennedy gave a very interesting demonstration and lecture on "Radio Cautery."

EMPIRE NEWS

GREAT BRITAIN:

President of B.D.A.

The War Council of the British Dental Association has elected Mr. Walter R. Wood as President of the Association, to fill the vacancy created by the untimely death of the late President.

GENERAL NEWS

L'Information Dentaire

War conditions have rendered the publication of dental magazines in France extremely difficult. In spite of these conditions the owners of *L'Information Dentaire,* which is a weekly publication going to 80% of the profession in France, have decided to continue the publication of this journal without profit to the owners, and without salaries to the editorial and management staff. It will be sent free to all dentists who are mobilized at the front or in base hospitals.

Subscriptions are urgently needed and an appeal is made to Canadian dentists to assist. The annual subscription price is 150 francs or three dollars in American currency. Canadian subscribers will receive 52 weekly copies in French and if their number be sufficient, a quarterly supplement in English containing translations and abstracts of the most important articles.—*R. Henry-Waetjen, Managing Director, 16 Rue Vignon, Paris, France.*

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Attention N.Y.U. Alumni

If you have any news concerning the activities of alumni members of New York University College of Dentistry, such as

a. Institutional activities by N.Y.U. alumni; e.g., public clinics, hospitals, city health centers, etc.
b. Fraternal alumni activities. (In order to make sure your fraternity is not left out, get in touch with me.)
c. Class activities of alumni; such as, reunions, dinners, etc.

please get in touch with Harry Roth, '31, Associate Editor, Alumni Section, N.Y.U. Dental News, c/o College of Dentistry, 209 East 23d Street.

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Caulk Company Policy

The L. D. Caulk Company of Canada has advised the Canadian Dental Association that during the present war, as in the last war, it will not charge exchange on any products sold in Canada. All proceeds of sales in Canada are to be kept in Canada and invested in War Bonds, as and when they are issued. The Caulk Company of the United States is fully financing Caulk of Canada in this policy which is a saving to Canadian dentists on all Caulk products and is a gesture of appreciation, on the part of Dr. G. Layton Grier, for what Canada is doing in its fight for liberty and peace, and for those values of life which are the heritage of centuries of human progress.

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Dental Centenary Celebration

Arrangements for the Dental Centenary Celebration, being held in Baltimore, March 18-20, are practically complete. Due to the enthusiastic co-operation of the men throughout the country it has been possible to bring together an aggregation of valuable historical and scientific dental material and a group of essayists which for excellence have never been equalled in the history of the profession. Neither effort nor expense has been spared in order to provide a Celebration worthy of our profession and in keeping with its phenomenal progress.

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Chicago Dental Society

During the week of February 12 the attention of the dental profession will be focused on the second largest city in the United States for the 76th renewal of America's dental classic, the Mid-winter Meeting of the Chicago Dental Society. Those dentists fortunate enough to be on hand at the Stevens Hotel for this unique gathering will be well repaid in increased professional skill and renewed enthusiasm. There will be special clinics given in small private rooms, by prominent clinicians, and limited to 25 dentists each. Outstanding practitioners and teachers will present addresses and clinics. There will be exhibits of interest to all.

The social aspect of the Meeting has not been slighted and, in fact, the whole program will challenge the interest and thought of everyone present, regardless of the nature of his practice.

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Director of Dental Services Promoted in Rank

Congratulations to Col. Frank M. Lott, Director of Dental Services in Canada, who has been promoted to the rank of Colonel in recent orders from Ottawa. This is certainly a tangible evidence that the Department of

National Defence appreciates the splendid service he has rendered.

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Lt.-Col. W. G. Trelford, V.D., formerly District Dental Officer for Military District No. 2, has been appointed to the command of the First Divisional Dental Company.

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Dr. Gordon L. Frawley of Class '20 has been given command of No. 1 Bridge Company R.C.A.S.C., C.A.S.F.

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Captain Harvey Bean, formerly attached to the 15th Base Hospital, is now District Dental Officer for M. D. No. 2 in Toronto, succeeding Lt.-Col. W. G. Trelford, V.D.

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Dental Institute of America

At the Milwaukee Meeting the approval by the American Dental Association was not granted to the Dental Institute of America, which had requested such approval in a resolution presented to the House of Delegates at the St. Louis meeting. The Special Committee making the report further recommended that members of the American Dental Association interested in further dental health education through the medium of newspaper publicity should devote their efforts to furthering the activity and influence of the Bureau of Public Relations of the American Dental Association.

Approval was not given to the Dental Institute of America because it did not safeguard sufficiently the type of publicity that could be released to the press and because control of the organization was not definitely in the hands of the organized profession.—*B. Chicago D. Soc.*

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Pennsylvania Medical Service Plan Chartered

The Medical Service Association of Pennsylvania was chartered by the Dauphin County Court in Harrisburg September 7, newspapers report. The new plan is sponsored by the Medical Society of the State of Pennsylvania. Offices will be opened in Harrisburg and Philadelphia within a few weeks, it was said. Persons eligible for the service are those earning less than $60 a week if they have dependents and those earning less than $30 if they do not have dependents. Individual as well as group memberships will be available. Rates will begin at $2.50 a month for single persons, $4.50 for married couples, $1.50 for the first child and $1 for each additional child or dependent.—*Journal of the American Medical Association: 9/23/39.—A.D.A. Release.*

IN MEMORIAM

William James Kerr, Toronto, after a lengthy illness of 19 months, died on December 31st in his 42nd year.

Dr. Kerr was born in Denver, Colorado, and while very young came to live in Guelph, Ontario. After his early education in Guelph public schools he attended St. Andrew's College and from there he entered the Dental Faculty of the University of Toronto, graduating in 1922.

He began practice in Arthur, Ontario, but soon came to Toronto to enter his specialty of exodontia. In his dental practice he was eminently successful and he was highly esteemed by his colleagues.

He was a member of Prince Arthur lodge A.F. & A.M. in Arthur, Ontario, and a charter member of Wellington lodge A.F. & A.M., Toronto. He was a member of Kew Beach United Church, served on its Board of Managers and was an active member of its Men's Club. He was always a member of the Academy of Dentistry, Toronto, and was its president in 1935. He was a member of the Ontario Dental Association and the Toronto Society of Exodontists.

He is survived by his widow and four sons, David, age 12, Jimmy and Johnny, age 9, and Billy, age 7; his mother, Mrs. Annie Kerr, Toronto, a sister Mrs. G. L. Wright, Winnipeg, and an aunt, Miss M. L. Hadden of Toronto.

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William Murray McGuire of Simcoe, Ontario, age 76, died at his home on December 12th after a lengthy illness.

Dr. McGuire was widely known in Toronto and Western Ontario. He was born in Stewarttown, Halton County, receiving

his early education there; later he attended Collingwood Collegiate, then came to Toronto for his course in dentistry. He graduated in 1893 and set up practice in Waterford, where he continued until 1914. His retirement from active practice was occasioned by his accepting an appointment as Registrar of Deeds for Norfolk County, which office he held until 1935.

Dr. McGuire was a very active and efficient man. He had wide and varied interests which attracted the esteem and admiration not only of his dental colleagues but of his fellow citizens in his own community. He served as a member of the Board of Directors of the R.C.D.S. for many years and for two years was its chairman. He served as chairman of the Dominion Dental Council for a time.

He was an ardent Mason; he was a past master of Wilson Lodge, Waterford, and a past first principal of "Ezra" Chapter Royal Arch Masons at Simcoe.

He was an active sportsman, taking an interest in most every athletic game in his time. His great love, however, was golf and he played a good game. He was chosen on three occasions to play on the Canadian Seniors team, twice in United States and once in England.

Dr. McGuire was an Anglican and a very active supporter of his church. He has for many years served as Church Warden, indeed Trinity Church in Waterford came into being to a large degree by the efforts of Dr. McGuire and another associate.

The passing of Dr. McGuire removes a much loved professional gentleman and one whose memory and achievements will continue to live.

Dr. McGuire is survived by his widow, an adopted son, Wilbert M. McGuire, and one sister, Mrs. John Price of Simcoe.

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Ernest Knapp, of Kingston, Ontario, died November 27. He was born at Kepler where he received his early education and later attended Queen's University. He was graduated in dentistry from the University of Toronto and had practised in Kingston for the past 43 years.

He was a member of the United Church of Canada, the Masonic Order and the I.O.O.F. He was also a prominent bowler.

Dr. Knapp is survived by his widow, three sisters and one brother.

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Frederick S. Mercer, of Edmonton, Alberta, aged 65, died September 7.

He was born at Cheltenham, Ontario, and his preliminary and high school training were obtained at Orangeville. Later he was graduated in dentistry at the University of Toronto, and became one of the early dentists of the Canadian West. During his long years of practice in Alberta he took a special interest in prosthodontia, and was granted a certificate as specialist in that branch of dentistry by the University of Alberta.

His lifetime of conscientious effort in the field of dentistry has helped to elevate the standard of dentistry in the Province of Alberta.

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Harrison Herron, of Stamford, New York, aged 37, died November 12. He was graduated from the Royal College of Dental Surgeons of Ontario in 1931. Following graduation he served in the Eastman Dental Infirmary in Rochester, with Dr. Vaughan, of New York, and with Dr. Decker, of Binghampton, N.Y., previous to commencing practice in Stamford, N.Y., in 1933.

With two friends and two guides he went duck hunting on the Hudson River. The boat capsized and all were drowned. He is survived by his widow, his father and mother, two sisters and one brother. Dr. Herron was a nephew of Dr. Sydney Bradley, of Ottawa, and a brother-in-law of Dr. George Barnett, of Edmonton, Alberta.

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Reid Virtue, of Toronto, Ontario, aged 39, died December 21. Dr. Virtue who gave up athletics to practise dentistry was one of the great lacrosse and football players of his day. All those who played with him or against him were his friends and from them were selected the pallbearers.

. . . SECTION FRANÇAISE . . .

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Cent ans d'enseignement dentaire

PAUL E. POITRAS, D.D.S.
(Origine de la Faculté Dentaire de Montréal)

Un des anniversaires les plus importants de la chirurgie-dentaire est le premier centenaire de son enseignement qui sera célébré les 18, 19 et 20 mars prochain à Baltimore, Maryland. Un comité international, "Dental Centenary Celebration", patronné par l' "American Dental Association" a été formé. Ce comité est à organiser un congrès et une exposition rétrospective où toutes les facultés dentaires américaines et canadiennes ont été invitées à y participer.

En janvier 1840, l'aîné des collèges dentaires, "Baltimore College of Dental Surgery", ouvrait ses portes pour la première fois aux étudiants désireux de s'instruire dans l'art de guérir les dents, sous la direction des docteurs Horace H. Hayden, président et Chapin A. Harris, doyen.

Le "Baltimore College of Dental Surgery" ne fut pas organisé sans difficulté. Dès sa naissance, il lui fallut lutter, non seulement, contre de nombreux ignorants qui s'opposaient de toutes leurs forces à la nouvelle méthode d'enseigner la science dentaire mais aussi contre les universités justifiées, à cette époque, de garder une certaine réserve à cause du manque de culture du plus grand nombre des dentistes d'alors. Courageusement, il batailla pour son idéal qui était de donner à la nouvelle génération une culture plus scientifique. Bientôt ses ennemis et aussi ses amis constatèrent que le collège était né viable et résisterait à toutes les attaques.

Les connaissances strictement nécessaires à la pratique de la chirurgie-dentaire

s'enseignaient "du premier lundi de novembre au dernier jour de février". "Après un stage de deux ans, l'étudiant, qui avait subi avec succès l'épreuve des examens d'anatomie, de physiologie, de dentisterie opératoire, de pathologie, de thérapeutique dentaire, et de plus, avait soutenu une thèse, obtenait un grade. (1)

Cette école libre naquit du refus de la faculté de médecine de l'université de Maryland, à Baltimore, d'accueillir favorablement les demandes, maintes fois réitérées, des docteurs Hayden et Harris: ces derniers, dont l'idéalisme rêvait de vaincre l'empirisme et de tuer le charlatanisme, voulaient que les médecins se spécialisassent en chirurgie-dentaire comme ils commençaient à se spécialiser en ophtalmo-oto-rhino-laryngologie. Ce refus fut-il un bien ou un mal? Je ne saurais pas répondre à cette question d'une façon impartiale. Cependant il me faut constater que le résultat fut de faire de la chirurgie-dentaire, non pas une spécialité de la médecine, comme elle aurait dû l'être normalement, mais une profession indépendante, tout au moins en Amérique.

Le "Baltimore College of Dental Surgery" seul ne contribua pas à créer la nouvelle profession; l' "American Society of Dental Surgeons" (1839) et l' "American Journal of Dental Surgery" (1840) y aidèrent grandement. Cette branche séparée de l'arbre fut regardée pendant de longues années comme un métier ou un art plus qu'une science.

Peu à peu, elle se développa et finit, après de nombreuses luttes, par être considérée comme un atout indispensable dans la médecine préventive de même que dans le dépistage et le traitement de certaines maladies. Après un siècle de progrès, lent mais constant, aucun médecin, aujourd'hui, oserait nier la nécessité des chirurgiens-dentistes.

D'une population beaucoup moins dense que son voisin les Etats-Unis, le Canada dut attendre vingt-huit ans avant que la première école dentaire canadienne fut fondée, "Canada Dental College". Organisée par une corporation privée, elle commença son enseignement à Toronto, en octobre 1868, avec un droit de scolarité de cinquante dollars par année; ce revenu, étant insuffisant pour payer les dépenses, on suspendit les cours, le premier mars 1869. En octobre suivant, les dentistes ontariens essayèrent de réouvrir l'école escomptant un meilleur succès: Deux élèves s'inscrivirent: Benson Gilbert de Belleville et James Wood de Sarnia. Fait intéressant, tous les deux pratiquèrent plus de cinquante ans. Au mois d'avril 1870, le bureau des dentistes, ayant fait faire le vérification des livres, eut un rapport déclarant un déficit de cent vingt-cinq dollars; par une résolution passée au mois de juillet 1870, l'école fut fermée. En janvier 1871, le trésorier vendit les meubles et la somme retirée aida à payer les dettes. (2)

Deux échecs successifs n'étaient pas suffisants pour décourager ces hommes habitués à vaincre les obstacles. En novembre 1875, un troisième collège commença à donner des cours aux onze élèves enregistrés qui, après trois sessions, seront prêts à recevoir le grade de licencié en chirurgie-dentaire, (L.D.S.) (Licentiate of Dental Surgery) pourvu qu'ils passent avec succès les examens éxigés par le "Royal College of Dental Surgeons of Ontario". Les difficultés du début surmontées, grâce à James Branston Willcott et Luke Teskey, de meilleures années s'annoncèrent. En mai 1888, l'université de Toronto affilia le collège dentaire qui devint ainsi l'aîné des facultés dentaires anglaises; en mars 1889, la nouvelle faculté était orgueilleuse de décerner pour la première fois dans l'Empire Britannique le grade de D.D.S.

Avec les années, ce collège, devenu adulte, s'est acquit une réputation scientifique dont personne oserait contester aujourd'hui la réelle valeur.

Depuis le statut de 1869, autorisant les chirurgiens-dentistes du Québec à s'organiser en corporation privée, rien encore n'avait été fait pour l'instruction dentaire dans cette province.

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(1) New York Recorder. Vol. 1, page 23.

(2) Dominion Dental Journal. Juin 1927. Page 168.

En 1892, l'Association se décida enfin de combler cette lacune en fondant un collège bilingue "Collège dentaire bilingue de la province de Québec" amélioration jugée de première importance à cause du nombre croissant des étudiants de langue française qui étaient dans une position désavantageuse à cause de l'enseignement exclusivement anglais donné dans toute l'Amérique. (3)

Il est agréable de rendre hommage à ces quelques chirurgiens-dentistes qui, sacrifiant argent et temps, contribuèrent au développement scientifique de notre jeune profession. A l'exemple de la province d'Ontario, le Québec dentaire, pour ne pas se laisser devancer, ouvre donc le collège bilingue, rendu nécessaire par suite des progrès rapides faits dans cette science. Le collège voulant répondre aux désirs de tous se devait de faciliter l'instruction des étudiants de langue anglaise et française, d'en faire des dentistes plus compétents que leurs aînés et de développer chez eux un bel esprit professionnel. Ces résultats ne devinrent sensibles que quelques années plus tard.

Pour être sur un pied d'égalité avec les écoles américaines et le collège de Toronto, les autorités des universités McGill et Laval furent approchées pour obtenir l'affiliation et le grade de S.D.D. "Scientiae Dentium Doctor", en anglais D.D.S. "Doctor of Dental Science," ou en français D.C.D. "Docteur en chirurgie dentaire". Après bien des pourparlers McGill répondit que seul le grade de "Gradué en chirurgie-dentaire" pourrait être donné. Laval influencé, par je ne sais quoi, ne voulut même pas faire de concessions. La profession refusa le compromis de McGill en suspendant toutes les discussions. A l'automne le collège recevait ses premiers élèves lesquels après trois sessions et un examen de compétence auraient droit au grade de "Licentiate of Dental Surgery" (L.D.S.)

Le premier immeuble occupé par le collège était situé au numéro 2, Phillips Square, coin nord-ouest de la rue Cathcart maintenant l'édifice Birk, il fut loué d'un nommé A. Joyce pour une période de quatre ans et demie; le bail signé par trois membres de l'Association, MM. W. George Beers, J. H. Bourdon et J. Hugh Berwich, était de sept cents dollars par année plus les taxes.

En septembre 1892, l'Association vota une somme de cinq cents dollars pour acheter une partie de l'ameublement lequel fut complété par les dons de quelques dentistes anxieux de voir réussir la nouvelle entreprise. Le rez-de-chaussé fut sous-loué à un libraire, nommé Baker et le premier étage occupé par le collège. Ce local devenu trop petit, en 1898, la clinique et les cours furent transportés au coin nord-ouest des rues Sainte-Catherine et Saint-Laurent, au premier étage de la bâtisse Saxe, pour y rester jusqu'en 1902 alors que la section anglaise reçut l'hospitalité du "General Hospital" rue Dorchester est, où elle est toujours et la section française, devenue la propriété des docteurs Dubeau, Nolin et Gendreau, ouvrit une clinique dans l'édifice LaPatrie coin des rues Sainte-Catherine et Hôtel-de-Ville. En 1907, Mgr. Dauth, vice-recteur de l'université Laval, à Montréal, installa le collège dans la bâtisse, connue alors sous le nom d'Hospice Saint-Joseph, coin nord-ouest des rues Demontigny et Saint-Hubert, propriété de l'université; cinq ans plus tard la modeste maison fut démolie, la session 1912-1913 fut tenue au coin des rues Sainte-Catherine et Saint-Christophe et au mois d'octobre 1913, l'édifice actuel était inauguré, par sir Lomer Gouin, premier ministre de la province. (4)

Du fait que McGill et Laval avaient refusé l'affiliation, le collège ne devait pas s'avouer vaincu. N'y avait-il pas d'autres universités prêtes à écouter favorablement les demandes de l'Association? Entre autres, l'université Bishop de Lennoxville, dont l'école de médecine jouissait d'une certaine réputation et devra fermer ses portes en décembre 1910. Pourquoi ne pas essayer de réunir le collège dentaire et la faculté

(3) Oral Health—avril 1926—page 211.

médicale pourvu que le résultat soit d'y gagner le grade, tant convoité, de D.D.S. Ce serait la réalisation d'un rêve longtemps caressé.

Après plusieurs assemblées entre les médecins de Bishop et les dentistes du collège, un acte, en 1895, fut signé; par une des clauses de cet acte, l'université s'engageait à conférer le grade de D.D.S. aux étudiants régulièrement inscrits et ayant passé avec succès les examens finals; l'année suivante les premiers parchemins étaient donnés à qui de droit. C'était récompenser vingt-sept ans de travail désintéressé en mettant sur un pied d'égalité la profession dentaire québecquoise et la profession médicale.

Bishop, université anglaise et protestante ne pouvait longtemps convenir à l'idéal français et catholique. En 1904, Mgr. O. A. Mathieu, recteur de l'université Laval, à Québec, à la demande des docteurs Eudore Dubeau, J. Nolin et J. G. A. Gendreau affilia la première école française d'Amérique à qui Mgr. Archambault, vice-recteur, à Montréal, donna l'hospitalité. Devant ce fait accompli, le docteur F. A. Stevenson, D.M.D., et le docteur T. G. Roddick, M.D., doyen de la faculté de médecine McGill, prièrent les autorités de McGill de donner les mêmes droits à une école anglaise; leur demande accordée, le docteur F. A. Stevenson fut nommé doyen, ses successeurs furent les docteurs Peter Brown, J. H. Berwich, A. W. Thorton et, le doyen actuel, Arthur Walsh.

En 1902, l'école dentaire bilingue cessa ses activités par suite de la vente de la section française par l'Association aux docteurs Dubeau, Nolin et Gendreau pour continuer comme école indépendante. Pendant dix ans, elle s'était maintenue, grâce au dévouement de professeurs, non rétribués, sous la présidence des doyens: Dr. W. George Beers (1892-1896), Dr. J. H. Bourdon, doyen intérimaire, et le Dr. Stevens Globensky (1897-1902). En 1904, Laval nomma Dr. E. Dubeau, doyen, J. Nolin, vice-doyen, et J. G. A. Gendreau, secrétaire.

A la fondation de l'université de Montréal, en 1920, l'école dentaire Laval changea son nom en celui de "Ecole dentaire de l'université de Montréal" après que ses propriétaires eussent donné leur actif à la nouvelle université à la condition qu'ils restassent membres à vie du conseil d'administration.

L'année suivante, le chancelier, Mgr. Georges Gauthier présidant la commission des études élevait l'école au rang de faculté.

Les 15, 16 et 17 octobre 1928, la faculté de chirurgie dentaire célébra son vingt-cinquième anniversaire en tenant à Montréal le premier congrès des chirurgiens-dentistes de langue française de l'Amérique de nord sous la présidence du docteur S. Gaudreau de Québec. Cinq cents dentistes environ s'enregistrèrent et suivirent les séances de ce congrès. Au cours du banquet donné, le 16, au Cercle universitaire de Montréal, le buste en bronze du docteur Dubeau, dû à mademoiselle Alice Nolin, fille du vice-doyen, lui fut présenté au nom des congressistes par sir Lomer Gouin, président de l'université de Montréal. (5)

En 1933, à la demande des chirurgiens-dentistes du Québec l'université de Montréal obligea tous les élèves avant d'être admis à la faculté comme étudiants à être bacheliers ès lettres, ès sciences ou ès arts. L'année prédentaire, créée le 22 novembre 1926, fut abolie. Cela eut pour résultat d'obtenir une meilleure culture et le relèvement du niveau intellectuel de notre profession.

Le Canada possède aujourd'hui cinq facultés dentaires affiliées aux universités de Dalhousie, McGill, Montréal, Toronto et Alberta. L'enseignement donné dans beaucoup de cas est égal aux meilleures écoles européennes et américaines et jamais inférieur.

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(4) Le Quartier latin. 11 avril 1935—Page 11.

(5) La semaine dentaire—30 décembre 1928—Page 1072.

REVUE DES REVUES

Chimiothérapie par les Sulfamides

par le DR PIERRE ROLLAND (L'Odontologie, août 1939).

L'auteur, après avoir donné un court historique des sulfamides, étudie le mode d'action des sulfamides, et fait remarquer que tous ces produits n'agissent qu'après une période de latence plus ou moins longue selon qu'on a affaire à une chrysoïdine ou à une sulfamide simple; il y a scession dans l'organisme: les dérivés du groupe de chrysoïdine libèrent la sulfamide, c'est-à-dire le noyau actif. Celle-ci donne naissance à son tour à une série de dérivés étudiés par Mayer dont une hydroxylamine qui est un corps bactéricide et serait le véritable produit actif.

Pour Domagk qui en 1935 découvrit l'action de la sulfamido-chrysoïdine dans la septicémie streptococcique expérimentale, l'activité des chrysoïdines consiste avant tout en une exaltation des moyens de défense de l'organisme; elles agiraient d'une part sur le terrain dont elles exaltent les moyens de défense, d'autre part sur les germes qu'elles fragilisent et dont elles empêchent la multiplication. Tous les produits sulfamidés, à condition d'être chimiquement purs et préparés selon une méthode rationnelle, ne sont pas très toxiques aux doses usuelles (de 1 à 3 grammes par jour). Le plus toxique serait probablement le PRONTOSIL, les moins toxiques étant la SEPTAZINE (6 à 8 grammes par jour), le DAGENAN et le RODILONE.

On a imputé certains accidents aux sulfamides, 169 cas de mort furent enregistrés aux Etats-Unis à la suite de l'emploi d'un élixir à base de sulfanilamide, mais l'action toxique était due, non à la sulfamide elle-même, mais au solvant qui l'accompagnait: le diéthylène-glycol dont l'action est extrêmement toxique.

L'intoxication due à des doses trop fortes d'emblée, ou trop longtemps prolongées, n'est pas, en général, un phénomène brutal, et si le traitement est contrôlé par un médecin suffisamment averti, il ne doit pas y avoir d'accidents. L'un des signes les plus nets de début d'intoxication est l'apparition de cyanose qui traduit vraisemblablement la fixation sur l'hémoglobine du sang de dérivés de réduction des sulfamides. En somme les sulfamides ne sont pas des médicaments toxiques s'ils sont chimiquement purs, mais en raison de la possibilité d'accidents d'intolérance, ces produits ne doivent être administrés qu'à bon escient, sous surveillance du médecin et il est bon de tâter la susceptibilité du malade.

Les accidents graves sont très rares surtout avec les dérivés nouveaux dont le coefficient chimio-thérapique est élevé. Ces accidents n'ont rien de spécial. Cependant il faut y ajouter les troubles dus aux réactions d'intolérance du malade. Dans cet ensemble complexe, on distingue: les INCIDENTS IMMEDIATS qui traduisent souvent l'idiosyncrasie médicamenteuse: oedème de la face avec erythème, diarrhée, céphalée, asthénie, somnolence, vertiges, prostration, rétention urinaire, albuminurie, urticaire. Ces accidents ne commandent pas l'interruption du traitement mais constituent un symptôme d'alarme.

Les INCIDENTS PRECOCES; n'apparaissent jamais avant 8 ou 15 jours et peuvent se résumer

1° à la cyanose, très fréquente au cours des traitements trop prolongés par la sulfamide. En général elle reste bénigne. Cette cyanose est généralisée ou localisée (lèvres, gland, ongles).

2° aux éruptions cutanées. Les éruptions cutanées exigent souvent l'arrêt du traitement.

3° aux réactions thermiques. La fièvre peut apparaître comme symptôme unique; Elle ne constitue pas une contre-indication.

4° Aux réactions viscérales, vomissements, diarrhée, ictère, acidose rénale. Les accidents tardifs d'intoxication par les sulfamides sont toujours graves et contre-indiquent la continuation du traitement d'une façon formelle. Les sulfamides démandent donc d'être judicieusement employées sous surveillance du médecin ou du dentiste qui doivent faire un examen systémique du sang et des urines, limiter le traitement à 10 jours au plus et l'emploi des doses régulièrement décroissantes.

Les sulfamides sont contre-indiquées chez les sujets atteints d'anémie grave, chez les hémogéniques, les hémophiliques et d'une façon générale chez tous les sujets porteurs de graves tares viscérales (cardio-rénaux, hépatiques avancés). Les sulfamides sont des armes hautement efficaces dans le traitement des maladies infectieuses et elles sont employées avec succès dans les STREPTOCOCCIES (infection puerpérale) et notamment dans l'angine de Ludwig et l'érysipèle. Dans la MENINGITE CEREBRO-SPINAL. Dans la BLENNORRAGIE d'excellents résultats ont été obtenus avec les sulfamides telles que la Septazine, mais il semble que le DAGENAN soit spécifique de cette affection. On obtient presque toujours en 3 ou 4 jours l'arrêt de l'écoulement et des douleurs. La posologie est la suivante: 3 grammes (en 6 prises régulièrement espacées) pendant 1 à 2 jours puis 2 grammes pendant 2 jours et enfin 1 gramme pendant 2 ou 3 jours. Les sulfamides sont aussi employées dans le rhumatisme, la colibacillose urinaire et les pneumococcies.

Dans les septicémies d'origine bucco-dentaire, les septicémies à streptocoque surtout les composés sulfamidés, (Dagénan) sont appelés à rendre de signalés services, cependant ces médicaments demandent à être judicieusement employés sous surveillance médicale.

Paul Geoffrion.

Bibliographie

Dans un numéro du 1er octobre, l'Information Dentaire, sous la signature de Chs. Huttinger, nous donne une étude fort intéressante d'un ouvrage paru en Grèce et intitulé: CONTRIBUTION A L'ETUDE CLINIQUE DES SEPTICEMIES GENERALES D'ORIGINE BUCCO-DENTAIRE. (Sans localisation anatomique secondaire) par J. C. Ailianos et N. L. Chaniote (Athènes).

Cette analyse nous a paru si bien faite que nous avons cru utile de la faire connaître à nos lecteurs.

Laissons la parole au confrère Huttinger.

Cette excellente étude mérite mieux qu'un résumé sommaire. Aussi, vais-je l'analyser d'assez près car il s'agit d'une des questions les plus passionnantes de la pathologie dentaire dans ses rapports avec la pathologie générale.

Déjà, dès le début du XVIII[e] siècle, J.-J. Petit insistait sur le rôle de la carie dentaire dans les maladies générales; mais ce n'est qu'en 1859 que Chassaignac a vraiment entrepris l'étude des septicémies d'origine bucco-dentaire.

Les travaux de Galippe et Millert, en 1892, Sébileau, Tellier (1903-1906), etc. . . ,

furent le prélude des travaux américains et de la fameuse leçon donnée en 1911 à l'Université de Montréal, où Hauter aborda l'étude de la "Focal-Infection".

Maintenant la question est posée et elle s'enrichit chaque jour de nouveaux apports. Les auteurs s'y sont intéressés depuis 1930. En 1936, ils donnèrent communication au Congrès International de Vienne des résultats de plus de 500 observations cliniques détaillées avec examens bactériologiques et plus de 600 radiographies.

Ces études cliniques confrontées avec les recherches bactériologiques contribuent puissamment à l'éclaircissement des nombreux points encore obscurs de la "Focal Infection".

D'ailleurs la confusion est facile; en Grèce, très nombreux sont les états de forme septicémique constitués par la première infection paludéenne maligne, par des infections typho-paralytiques, dysentériques, etc. . . . Comme, d'autre part il y a un nombre infini de malades porteurs de lésions bucco-dentaires et n'ayant jamais présenté d'accidents septicémiques, il est souvent très difficile de dépister les septicémies d'origine bucco-dentaire.

Les auteurs n'examinent dans leur étude que le rôle des lésions dentaires et paradentaires circonscrites, susceptibles de constituer des foyers d'infection existant à l'état latent. Ces foyers, déversant des microbes dans le torrent circulatoire peuvent devenir le point de départ d'une septicémie latente ou aiguë. L'ablation de ces foyers amène parfois la disparition de la septicémie; pas toujours cependant, car souvent les foyers dentaires primitifs se sont compliqués de foyers splanchniques secondaires qui maintiennent l'état septicémique même lorsque la cause dentaire première a été éliminée.

Par contre, les auteurs ne s'occupent pas des cas de septicémie consécutifs à des lésions bucco-dentaires étendues et aiguës, avec phénomènes inflammatoires prononcés et dont un des types est l'infection consécutive à l'éclosion de la dent de sagesse. Ce sont des cas de diagnostic facile et d'ordre banal.

Ils se bornent donc à l'étude des septicémies dues à des foyers infectieux latents et circonscrits qui passent souvent inaperçus.

La Focal-infection.—La théorie de la "Focal infection" s'est imposée et constitue aujourd'hui un facteur nouveau qui a contribué à l'établissement de l'étiologie de bien des septicémies d'origine indéterminée.

Les auteurs s'intéressent exclusivement aux foyers bucco-dentaires primitifs et indiscutables dont le rôle étiologique sur la septicémie est prouvé; notamment par la disparition de l'infection avec l'ablation de la dent.

Ils ne s'occupent ni:

1° Des foyers métastatiques secondaires à l'infection buccale primitive;

2° Des cas où les foyers buccaux infectieux sont eux-mêmes métastatiques et secondaires. En effet, MM. J. Bercher et Krivine (Congrès International de Stomatologie de Paris) ont prouvé que les granulomes ou autres foyers buccaux peuvent être secondaires à un état septicémique à point de départ situé dans un autre organe (peau, reins, poumons).

Il faut encore bien établir la distinction entre la "focal infection" et les septicémies générales. Dans les deux cas, il y a certainement invasion par voie sanguine, mais avec cette différence que dans les septicémies généralisées il s'agit de passages microbiens continus et abondants, à virulence élevée, où le tropisme microbien ne joue aucun rôle, tandis que dans la véritable "focal infection" avec détermination anatomo-pathologique secondaire, la prédilection organique et le tropisme microbien doivent jouer un rôle prépondérant.

Les auteurs ne s'occupent que des septicémies générales d'origine bucco-dentaire, sans localisation anatomique secondaire.

Quels sont donc les foyers infectieux latents circonscrits causant les septicémies?

I.—Les lesions alveolaires.—Les auteurs croient à la possibilité du passage dans le sang des microbes de la région infectée; sans la nier ils sont plus réservés en ce qui concerne la pyophagie et l'action du passage du pus dans l'intestin.

Les lésions alvéolaires deviennent d'ailleurs rarement le point de départ d'une septicémie véritable. Elles peuvent provoquer des réactions locales et générales, même fébriles, mais les auteurs n'ont pas pu observer de septicémies consécutives, excepté dans les cas où les malades alvéolo-pyorrhéiques étaient en plus porteurs de lésions périapicales prononcées. *Cela s'explique par le fait que les lésions alvéolaires évoluant sans pulpite et sans arthrite périapicale sont normalement bien drainées dans la cavité buccale.*

Cependant, il est indéniable qu'une pyorrhée alvéolaire ancienne, ayant des culs-de-sacs profonds dont le drainage se fait mal, chez des malades à état général mauvais, peut devenir, même sans lésion périapicale, le point de départ d'une septicémie générale.

II. La periodontite chronique.—Localisée au niveau de la région périapicale elle est due à une réaction tissulaire, ligamentaire et osseuse contre l'envahissement microbien provenant de l'infection pulpaire. Elle constitue le granulome, qui est une réaction de défense contre l'extension du processus inflammatoire. Le granulome est un foyer infectieux par excellence; il réalise un réceptable microbien clos, isolé du milieu extérieur et ayant une tendance naturelle à se créer une issue vers le milieu intérieur, c'est-à-dire la circulation générale. Cette invasion sanguine dépend des rapports anatomiques et vasculaires avec les tissus ambiants et surtout de la capacité réactionnelle et des conditions humorales, c'est-à-dire de la défense organique. Le granulome est un symptôme de la maladie pulpaire et il peut continuer à subsister malgré la guérison apparente de la pulpe.

Les auteurs estiment que, lorsque l'on se trouve devant un malade présentant une septicémie aiguë ou même latente, chez lequel aucune autre localisation n'est décelable, et que l'on constate une lésion dentaire attestée par l'examen clinique et la radiographie, il faut procéder à l'ablation totale de cette lésion parce que la vie même du malade est en jeu.

Le nombre des porteurs de lésions alvéolaires ou de lésions dentaires, ou des deux est extrêmement élevé alors que celui des cas de septicémie d'origine bucco-dentaire est relativement restreint. Nous en concluons que toutes ces lésions sont pathogènes, mais fort peu susceptibles d'engendrer une septicémie générale.

Les lésions alvéolaires sont toujours plus ou moins infectieuses, mais étant généralement bien drainées dans la bouche, elles sont habituellement peu dangereuses.

Les lésions périapicales sont toujours infectées et donnent des cultures positives. De plus, toutes les fois qu'au cours d'une pulpite il a été procédé à des prélèvements au niveau de la lésion périapicale, les cultures ont toujours été positives, même alors que la radiographie ne décelait aucune lésion (raréfaction ou autre). Ces cultures sont généralement à base de streptocoques à courte chaînette non hémolytiques. L'examen radiographique est donc, à ce point de vue, tout à fait insuffisant.

Même les dents dépulpées et soignées avec une asepsie complète, avec images radiographiques très nettes, fournissent des cultures positives dans une proportion de 25% (les auteurs) ou de 16.6% (Thibault et Raison).

Les dents dépulpées, sans atteinte apicale apparente, peuvent donc être infectées et être aussi redoutables, quoique plus rarement, que les dents porteuses de lésions manifestes.

La pulpe infectee.—Même en l'absence de granulome ou de toute lésion périapicale, la pulpe infectée peut également être à l'origine d'une septicémie généralisée.

La preuve formelle en est donnée par des auteurs qui ont vu disparaître des septicémies après ablation de dents à pulpe infectée, mais sans réaction périapicale, alors que n'avaient pas été extraites d'autres dents granulomateuses. Les auteurs ont observé que les dents infectées avec pulpe encore vivante sont tout au moins aussi dangereuses que les dents infectées dévitalisées.

En dehors de la pulpite constituant un foyer infectieux présumé, il en existe une autre, qui constitue une localisation secondaire au cours d'un état septicémique d'autre origine. Cette pulpite a été appelée à juste titre: "pulpite hématogène", où il y a contamination par voie sanguine de dents parfaitement saines.

De tout ce qui précède on peut conclure que les différents foyers dentaire et paradentaire qui forment le foyer infectieux, cause possible de septicémie générale sont, par ordre d'importance:

1° *Les lésions périapicales (granulomes);*
2° *Les lésions pyorrhéiques péridentaires;*
3° *La pulpite.*

Les auteurs donnent ensuite cinq observations particulièrement bien choisies.

Observation I.—Malade, 18 ans, souffrant depuis quatre ans d'un état infectieux avec fièvre périodique allant jusqu'à 39°4.

L'hémoculture, positive, démontre la présence dans le sang de streptococcus viridens. Après les traitements généraux les plus divers et à l'occasion d'une complication de ces symptômes, la malade est amenée aux auteurs qui, à la radiographie trouvent une raréfaction prononcée au niveau de $\underline{|12.}$ Les extractions sont opérées et la malade est complètement guérie.

Observation II.—Malade de 42 ans. Pendant plusieurs mois, fièvre rémittente avec transpiration, nausées, angoisses et vomissements.

On trouve des streptocoques non hémolytiques dans le sang. Bouche en très mauvais état. On procède à de nombreuses extractions suivies rapidement de la disparition de tous les phénomènes infectieux.

Observation III.—Malade de 35 ans. Depuis huit mois, fièvre continue oscillant de 37°3 à 38°5. Douleur dans les membres inférieurs, asthénie. Selles diarrhéiques, amaigrissement.

A l'examen buccal: pyorrhée assez marquée, racines en mauvais état; Granulome au niveau des apex de $\frac{2\ 1\ |\ 1\ 4}{7\ 6\ |\ 6\ 7}$

Les symptômes généraux ayant résisté à toute thérapeutique du médecin traitant, les auteurs pratiquent l'extraction de toutes les dents suspectes. L'examen bactériologique des lésions buccales donne des colonies où le staphylocoque prédomine. Atténuation rapide puis disparition de tous les phénomènes pathologiques généraux. Cinq ans après ils revoient la malade. Les radiographies du bassin et des membres inférieurs montrent des lésions d'ostéomyélite à évolution chronique. Traitement général approprié et série de vaccination antistaphylococcique. Amélioration considérable.

Cette observation constitue le type d'un cas de septicémie de forme latente et de très longue durée dont le point de départ était une localisation dentaire, et qui a été compliquée d'ostéomyélite. L'ablation des foyers d'infection dentaire et le traitement de la pyorrhée ont amené la suppression de l'état septicémique, d'ailleurs assez bénin. Ils n'ont pas amené la guérison complète de la malade, étant donné que la localisation ostéomyélitique déjà constituée a suivi son évolution, malgré l'ablation du foyer dentaire.

Observation IV.—Malade de 50 ans. Etat septicémique et fiévreux, élévation brusque de température suivie de chute accompagnée de sueurs. A défaut de toute

autre localisation on note de la sensibilité à la percussion à $\overline{4|4}$. Pas de douleur spontanée; rien à l'apex.

Par contre, la radiographie montre des granulomes à l'apex de $\overline{7\ 2|5}$.

Ablation de ces dents granulomateuses. Aucune amélioration. Devant cet insuccès, ouverture de $\overline{4|4}$. La culture de la chambre donne des colonies de streptococcus et de microbes anaérobies. Avulsion et amélioration rapide.

Cas intéressant qui montre que l'état septicémique était dû non pas aux granulomes, mais aux dents avec pulpe infectée.

Observation V.—Malade de 55 ans. Le 14 avril, frissons brusques avec fièvre de 39°8. Le malade se plaignait depuis février d'affaiblissement, de fatigue et d'inappétence.

Petite douleur insignifiante et passagère au niveau de $\overline{5|}$.

L'état général étant devenu soudain très grave, on extrait la dent.

L'hémoculture et les cultures faites par prélèvement au niveau du foyer donnent le même microbe.

Le malade succombe deux jours après.

Toutes ces observations concernent des malades atteints des deux types clinique et septicémie:

a) Forme septicémique aiguë;

b) Forme septicémique latente sans localisation anatomique secondaire.

Ont été écartées toutes les autres formes de septicémie, c'est-à-dire:

Les formes phlegmoneuses de Sébileau;

Les septicémies lymphatiques;

Les septico-pyorrhémies.

ETAT PRESEPTICEMIQUE.—C'est un état septicémique très latent qui existe soit au cours des lésions périapicales accompagnées de pulpite gangréneuse, soit surtout au cours de la pyorrhée alvéolaire.

Les auteurs, dans certains cas choisis de pyorrhée alvéolaire ont fait des recherches bactériologiques et des cultures d'urine et ont plusieurs fois trouvé, en dehors des éléments de néphrite, des streptocoques à chaînettes, les mêmes qu'ils avaient constatés dans les sécrétions pyorrhéiques.

Il y a donc une bactérihémie latente par passage de streptocoques dans le sang, passage qui se traduit cliniquement pour cet ensemble de troubles légers caractéristiques du stade présepticémiques ou même de l'état septicémique latent.

Pendant ce stade la microhémie passe presque inaperçue, mais à l'occasion d'une maladie intercurrente ou de la diminution de la résistance, les microbes peuvent acquérir une virulence élevée et provoquer une septicémie aiguë grave.

Il appartient au médecin de dépister l'existence de cette période présepticémique et d'agir pour prévenir l'éclosion septicémique possible, en attaquant précocement le foyer infectieux.

La seule manière d'empêcher les catastrophes possibles est de supprimer, aussi vite que possible tout foyer dentaire que le bon clinicien-dentiste juge susceptible de devenir le point de départ d'une septicémie.

FORME LATENTE.—Si les septicémies générales d'origine bucco-dentaire sans détermination ni localisation anatomique sont relativement rares, les formes chroniques de septicémie sont plus fréquentes surtout chez les malades porteurs d'anciennes lésions pyorrhéiques ou de vieux granulome infecté.

Le passage successif de microorganismes dont la virulence est certainement peu

élevée dans ces formes, donne naissance à la formation d'un état toni-infectieux chronique: légers troubles généraux, état subfébrile, aspect anémique, léger amaigrissement, troubles myalgiques et articulaires, vertiges. . . .

Chez un malade, l'avulsion des dents ou racines infectées, le traitement de la pyorrhée, amènent une amélioration immédiate suivie d'une guérison complète.

Il n'existe malheureusement pas de réaction biologique spécifique de cet état. La seule réaction vraiment importante est celle de la formule leucocytaire: Hyperleucocitose plus ou moins élevée avec prédominance de formes jeunes de polynucléaires neutrophiles.

Forme aigue et suraigue.—Dans cette forme le foyer initial se révèle fréquemment par des phénomènes locaux plus ou moins marqués. Les signes généraux caractéristiques sont le frisson intense, l'élévation de température jusqu'à 41°, le pouls petit et rapide et l'abattement du malade.

Hémoculture souvent positive avec prédominance de streptocoque et d'anaérobies. Urines albumineuses.

Les cas suraigus se terminent toujours par la mort.

Remarques bacteriologiques.—Les cultures provenant de l'ensemencement des sécrétions alvéolaires et des foyers apicaux ont prouvé l'existence d'une flore polymicrobienne où dominent les streptocoques. Le staphylocoque doré et les anaérobies, ainsi que les bacilles fusiformes occupent une place secondaire.

Les auteurs ont été frappés par la fréquence du streptococcus viridens non hémolitique et à courtes chaînettes. Haden, sur 890 cultures de dents dévitalisées, l'a trouvé 806 fois à l'état pur et 39 fois coexistant avec d'autres microbes.

La virulence de ces microbes est faible, mais elle peut, dans des circonstances heureusement très rares devenir très élevée par suite d'adaptation des germes au milieu sanguin. L'hémoculture, rarement positive dans les cas latents en raison du petit nombre de microbes déversés dans le sang, l'est au contraire fréquemment dans les périodes d'exacerbation des cas chroniques.

L'ablation du foyer infectieux.—Dans les cas de septicémie aiguë les auteurs procèdent à l'ablation immédiate du foyer infectieux dentaire.

Dans les cas latents et chroniques la question est plus discutable, car dans certains cas l'extraction précipitée peut provoquer une exacerbation des phénomènes généraux pouvant aller jusqu'à la création d'un état septicémique, heureusement passager le plus souvent. Une avulsion dentaire, dans un milieu infecté peut amener un choc brutal qui ébranle l'équilibre déjà instable de ces organismes très sensibilisés.

Dans ces cas il est indiqué, pour éviter ces accidents, de préparer et de désensibiliser l'organisme par l'emploi progressif de vaccins préparés avec des microbes correspondant à ceux du foyer infectieux.

Les auteurs ont constaté les résultats très satisfaisants des autovaccins dans les formes latentes, mais dans les formes aiguës ils sont restés sans effet. Dans ces cas aigus le seul moyen thérapeutique, en dehors de l'ablation du foyer, est la transfusion sanguine et l'immuno-transfusion, de même que la sérothérapie, surtout antistreptococcique.

Je souscris pleinement à la plupart des conclusions des auteurs de cet excellent ouvrage, notamment en ce qui concerne l'ablation du foyer infectieux.

On a vu des cas fréquents où une extraction hâtive alors que les phénomènes infectieux sont encore bénins, a produit un choc brutal, une exaspération soudaine et une septicémie parfois mortelle.

Il est un principe fondamental que les praticiens ne devraient jamais perdre de vue:

Si l'ablation ouvre une porte à la sortie, elle ouvre aussi une grande porte à l'entrée.

Dans les cas aigus et suraigus où le sang est déjà largement infecté de microbes, on ne court plus grand risque supplémentaire à extraire, ce qui supprime le foyer causal, et amène souvent la guérison rapide.

Mais dans les cas latents, lorsque les symptômes d'exacerbation sont au début et que le sang est encore peu contaminé, l'ablation du foyer ouvre largement les vaisseaux sanguins par où peut se précipiter une invasion microbienne massive, d'autant plus dangereuse que l'organisme se trouve en état de moindre résistance. Dans ces cas j'approuve pleinement la conduite des auteurs: il est souvent préférable d'aider la défense organique locale et générale et de préparer le terrain à une intervention.

En résumé:

Le passage des microbes dans le sang s'opère surtout là où il y a cavité close et où les éléments infectieux ne peuvent être drainés au dehors.

Normalement, et cela est prouvé par le petit nombre des accidents en regard du nombre infini des lésions bucco-dentaires, ce passage est peu important.

Il peut se manifester: 1° par un état présepticémique ou une septicémie latente, sans localisation; 2° il peut aussi, lorsque les microbes ont un tropisme pour un organe quelconque, se compliquer de lésions splanchniques, par exemple des néphrites.

Les auteurs ne se sont occupés que du premier cas, sans localisation.

L'état septicémique latent peut se transformer en une septicémie aiguë si la défense organique venant à faiblir, le nombre des microbes et leur virulence augmentent. Ce danger étant toujours menaçant, il faut pratiquer l'ablation du foyer infectieux bucco-dentaire.

Pour terminer, je dirai qu'il est particulièrement agréable de voir paraître à Athènes un ouvrage de cette valeur écrit en français, ce qui est un hommage rendu à notre langue.

Ch. Huttinger.

A rare photograph of a North canoe in action. Foreman and steersman both stand, middlemen sit two to a thwart.—By T. A. Sinclair, 1898.

By Courtesy of The Beaver, Hudson's Bay Compa

The dead are privileged. We forget their faults; we remember only the things that would excuse them, and we exaggerate only their good qualities. Even the posthumous discovery of errors, vices, betrayals, and villainies, passes almost unnoticed; it seems impossible to hold the dead responsible for things which would have confounded them utterly had they been alive. We begin to love them sincerely, faithfully, profoundly, only when they are no more.

Why do we not behave to the living as we do to the dead? If we did, life would be beautiful; easy, pleasant, smiling. But we have never done so. Must we conclude that it is impossible?—Maurice Maeterlinck in "The Hour Glass."

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Dental Surgical Procedures *

by GEORGE A. MORGAN, D.D.S., Toronto, Ontario

MANY frequently embarrassing and sometimes painful post-operative sequelae may be avoided by the general practitioner's intelligent following of the accepted surgical procedures and pre-operative precautions.

The introduction of outside bacteria is important but can be largely controlled by strict adherence to general surgical technique. It hardly seems necessary to emphasize the fact that dental instruments should be sterilized just prior to their use, rather than the day before. Much of our present day sterilization is useless due to contamination following boiling. Placing instruments on an unsterile tray, drying one's hands on an unsterile or even unclean towel, are but a few of the common breaks in technique which one must avoid in complicated cases—such as the removal of an impacted mandibular third molar. Failure to observe these ordinary routine procedures may easily be responsible for delayed healing and in some instances due to the close proximity of the throat and deeper more delicate tissues, serious post-operative complications.

Roentgenograms

One of the most neglected pre-operative considerations is the routine taking of the dental ray. Roentgen rays are the most valuable adjunct to dental diagnosis yet they are the least used in proportion to the possibilities that they offer. Crooked roots, cystic conditions, supernumerary and impacted teeth are but a few conditions which the pre-operative dental ray discloses.

It is essential that the roentgenograms from which the diagnosis is made be satisfactory and it is often necessary to have several views of the same region in order to obtain the desired information. Unsatisfactory roentgenograms usually result from one or more of the few common errors which can be corrected. These errors are peculiar to, and more or less constant for, the regions in which they occur, and usually result from improper placement of the film packet or incorrect angulation of the roentgen ray tube.

Anaesthetics

A local or general anaesthetic may be selected for the extraction of teeth. Some dentists prefer a certain anaesthetic, either because of the technique employed for a particular piece of work or because of long acquaintance with that anaesthetic. Equally good results are obtained with different anaesthetics used in the hands of different operators. It would seem that the type of anaesthetic used is dictated

* Read before the Western Canada Dental Society, Winnipeg, May, 1939.

purely by choice if the ultimate result is the same: however, the physician may furnish some information that would make one seem more desirable than the other. For example, a general anaesthetic would be contra-indicated in certain conditions of the thorax.

The patient's comfort should also be considered. It is often desirable to limit extractions to one side of the median line to allow the patient the use of one-half of his mouth; extraction on the other side can be done when healing from the first has taken place. More extensive operations may be done if the patient is hospitalized. It is advisable to discuss the prognosis with the patient so that he may be prepared for complications, but he should not be unnecessarily alarmed, and precautions should be dictated by common sense.

Premedication

Regardless of the skill of the operator, the patient's impression depends on the ability of the dental surgeon to avoid creating nervous tension. Elimination of fear and apprehension by preliminary medication should therefore be a source of satisfaction to both the patient and the surgeon. Much of the discomfort experienced during the extraction of teeth is due to fear, which is more or less inherent. We, as dentists, especially in complicated or multiple extractions, are beginning to realize and recognize the value of pre-operative medication to reduce the apprehension which the patient may have regarding surgical procedures. Adequate pre-medication not only insures better co-operation from the patient during operation but also adds a great deal to his comfort for several hours after

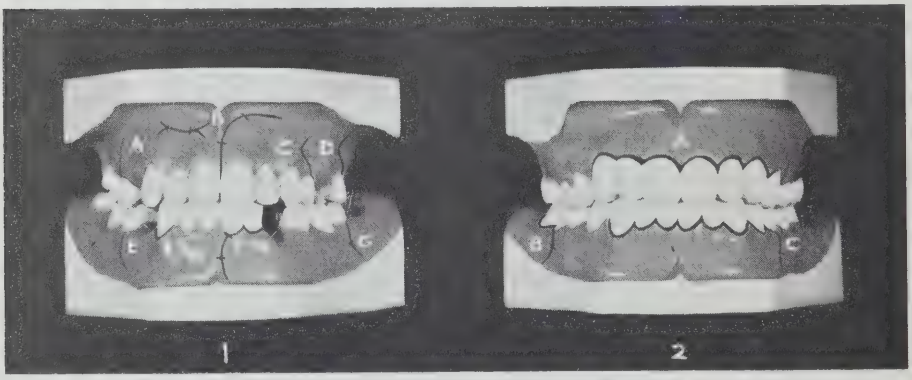

Figure 1.

A, Incision for the removal of a retained root, upper right first bicuspid area. B, Types of incision for an apiectomy of the upper anteriors. C, Incision for the removal of a retained root, upper left second bicuspid area. D, Incision for the removal of a retained root, upper left second molar area. E, Incision for the removal of a retained root, lower right first bicuspid area. F, Incision for the removal of a retained root, lower cuspid area. G, Incision for the removal of a retained root, lower left third molar area, or impacted third molar.

Figure 2.

A, Type of flap recommended in the removal of anterior maxillary bone hyperplasias. A continuous incision should be made around the gingival border of the teeth and extended distally as far as necessary in order that the resection of the flap may expose to full view the area of bone to be removed. This type of flap has some advantages over other types in that when sutured to place, the blood supply is not interrupted and support is given to the organized blood clot, thereby confining the swelling to a minimum. B, Incision for the removal of a hypercementosed lower right third molar. C, Incision for the removal of a hypercementosed lower left second molar.

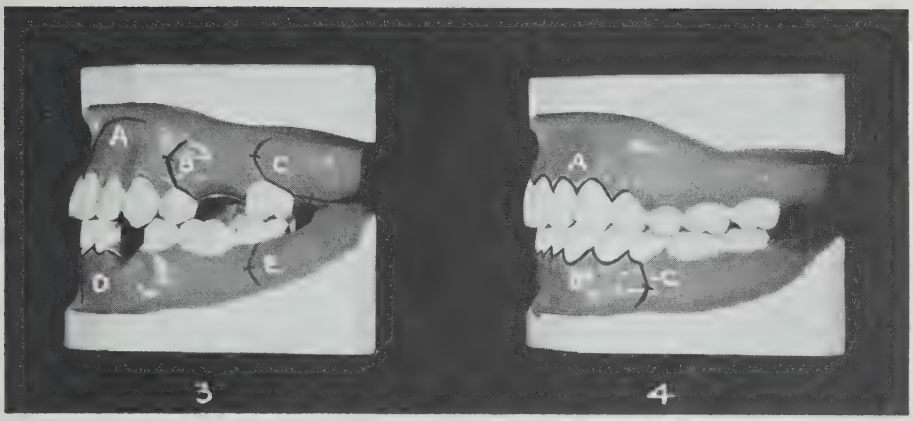

Figure 3.

A, Incision for an apiectomy of the upper anteriors. B, Incision for the removal of a hypercementosed upper left first molar. C, Incision for the removal of a retained root, upper left third molar area, or an impacted third molar. D, Incision suggested for the removal of a retained root, lower left cuspid area. E, Incision for the removal of a retained root, lower left third molar area, or an impacted third molar.

Figure 4.

A, Incision for the removal of cysts at upper anteriors. B, Incision for the removal of cysts about the lower anteriors. C, Incision for the removal of a hypercementosed lower left first bicuspid.

surgical interference. If a general anaesthetic is the one of choice, nembutal in one and one-half grain dosage will reduce the tendency to nausea and vomiting. If a local anaesthetic is the one of choice, one and one-half to three grains of the same barbiturate will do much to alleviate apprehension and fear as well as to increase the tolerance to procaine.

Incisions

Perhaps one of the next most often neglected pre-operative considerations is that of when, where, and how to make the initial surgical step, the surgical incision for the dental flap, necessary in the removal of the more complicated dental conditions. In such instances successful post-operative results frequently depend as much on the knowledge of the dental surgical incision as on the method of operation.

Dental surgical incisions may be classified in three groups; (1) those which are made on the labial, buccal, or lingual surface of the alveolus; (2) those which are made around the buccal or lingual-gingival margins of the teeth; (3) those which combine the first and second classifications to form the incision for an angular flap.

With satisfactory roentgenograms and an operative procedure outlined, dental surgical incisions and their resultant flaps, irrespective of their location should be made with precision. Care should be taken to evaluate the location of the approximate amount of bone to be removed in order that the flap when sutured will rest on a definite bone shoulder with a minimum amount of interference with blood circulation.

It is recommended that a double cutting edged knife such as the Louis T. Austin knife should be used. The incision should be made in such a way that

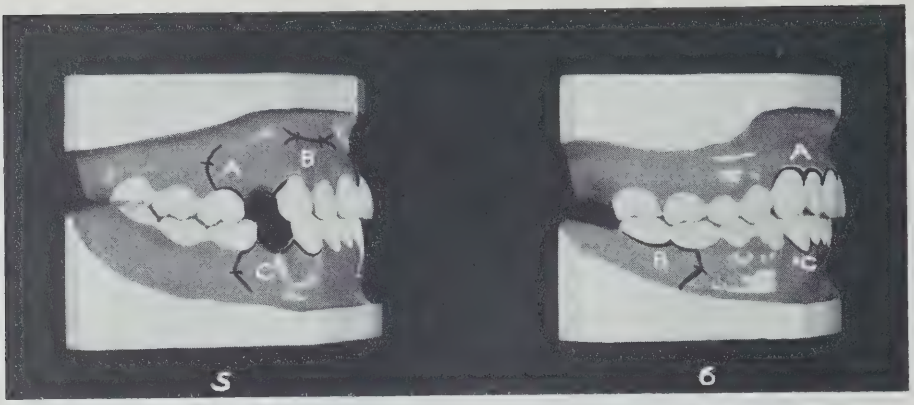

Figure 5.

A, Incision for the removal of a retained root, upper right bicuspid area. B, Incision for an apiectomy of the upper anteriors. C, Incision for the removal of a retained root, lower right second bicuspid area.

Figure 6.

A, Incision for the removal of cysts about the upper anteriors. The same type of incision as that used for anterior bone hyperplasias. B, Incision for the removal of a hypercementosed lower right second molar in a small mouth, or for an impacted third molar. C, Incision for the removal of cysts or bone hyperplasias about the lower anteriors.

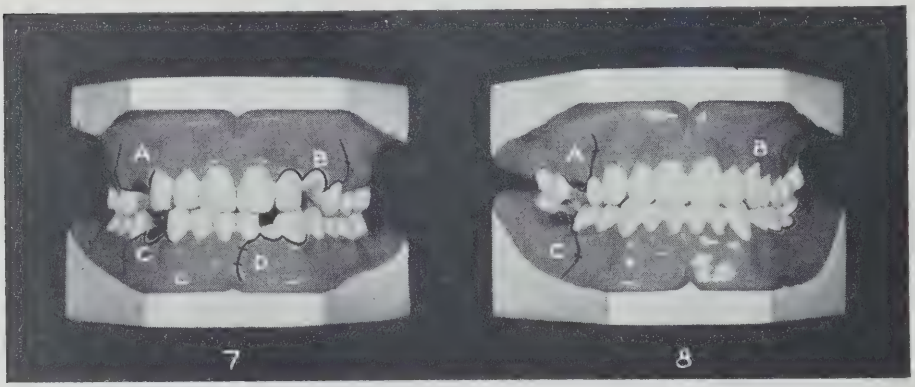

Figure 7.

A, Incision for the removal of a retained root upper right first bicuspid area. B, Incision for the removal of a carious upper left cuspid. The root of the cuspid is prominent and the overlying bone is thin. If an incision is made directly over the retained root, extensive bone destruction may occur. It is recommended that for the removal of an upper cuspid the incision be made well to the distal of the cuspid root and a suitable flap raised to give access for the removal of the necessary bone. C, Incision suggested for the removal of a retained root, lower right first bicuspid area. D, Incision for the removal of a carious lower left lateral.

Figure 8.

A, Incision for the removal of a retained root, upper right second bicuspid area. B, Incision for the removal of a retained root, upper left third molar area, or an impacted third molar. C, Incision for the removal of a retained root, lower right second molar area.

the knife penetrates through the alveolar tissue and periosteum to the bone, so that when it is resected by means of a blunt instrument, the periosteum is peeled

from the bone and not torn as is frequently the case. On completion of the operation, the flap should be placed in its original position and sutured together, the edges being made to approximate by means of number 000 catgut suture material and a minimum amount of sutures.

Having first walled off the operative area with a sterile gauze sponge, the in-

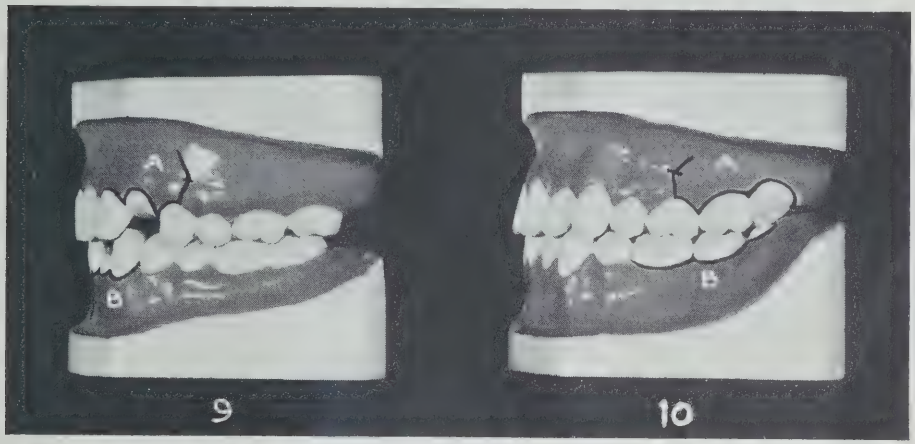

Figure 9.

A, Incision for the removal of a carious upper left cuspid. B, Incision for the removal of a carious lower left lateral.

Figure 10.

A, Incision for the removal of a hypercementosed upper left third molar. B, Incision for the removal of a suppressed lower left third molar.

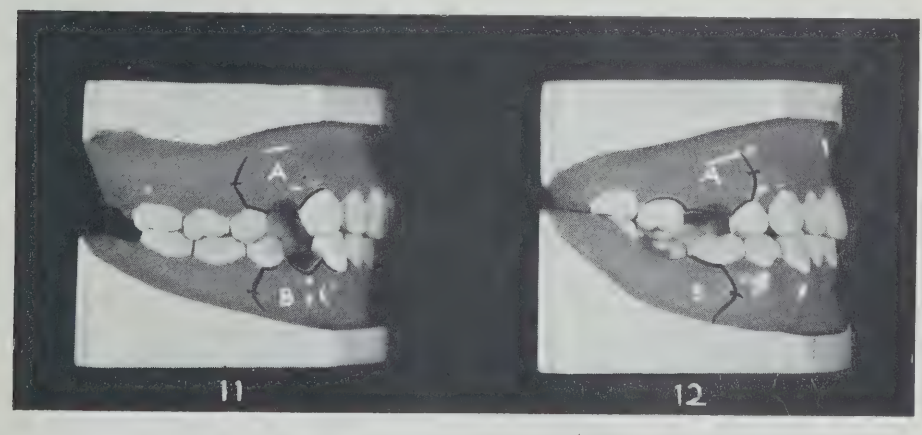

Figure 11.

A, Incision for the removal of a retained root, upper right first bicuspid area. B, Incision for the removal of a retained root, lower right first bicuspid area.

Figure 12.

A, Incision for the removal of a retained root, upper right first molar area. B, Incision for the removal of a retained root, lower right second molar area.

cision is made, the flap resected and the field of operation exposed. The flap is held in place by means of a Louis T. Austin tissue retractor. It is suggested that in all conditions necessitating flaps in the anterior maxilla or mandible (lingual), the incision be extended distally along the lingual-gingival margins of the teeth, as far as necessary in order that the resection of the flap may expose to full view the operative area.

The retained root most frequently found is that of the buccal root of the upper first bicuspid. When a flap is necessary for the removal of fractured bicuspid roots, an incision distally over the second bicuspid is suggested rather than one anteriorly over the cuspid.

Sutures

The variable opinion of dentists regarding suturing after extraction of teeth is rather difficult to explain. Perhaps, some of the failures of method have been due to the fact that too much is expected of it, and because it has not been carried out properly. For example, the stitches have been placed with so much tension that they cut through the tissues, or too many have been used, thus causing additional trauma, and correspondingly unsatisfactory results. Incorrect suture material and needles may also be the cause of dissatisfaction. Notwithstanding the objections to suturing, many operators have improved their post-operative results in this manner. Suturing is not always indicated after the extraction of even an impacted third molar, but when it is indicated, it should be used. The socket should not be entirely closed in every extraction; another point not definitely understood.

Post-Operative Treatment

Complicated cases which require surgical incisions for flaps also necessitate careful post-operative treatment. From the standpoint of post-operative service the roentgenogram made directly after operation is outstanding in its importance. If it shows that all roots have been removed and the infected area eradicated, the patient will be more tolerant of any discomfort that may follow. A roentgenogram that reveals a leg or arm properly set or one that reveals satisfactory extraction of a tooth, is a comfort to the physician, patient and dentist.

In the control of post-operative pain it is essential to find the cause of the disturbance. For example, it may be due to the presence of spicules with or without hypertrophied tissue; it may be the result of trauma; or it may be pain in a normal wound, or in the so-called dry socket in which the normal blood clot has been disturbed. Depressants or drugs which act on the central nervous system, such as morphine sulphate may be used. The analgesic dose is one-eighth to one-half grain, depending upon the severity of the pain. It is better to use a small dose and repeat it than to give too large a dose. One-half a grain of codeine or more, may be used, which is equivalent to one-eighth grain of morphine. The combination of five grains of aspirin and one-half grain of codeine in capsules to be taken orally has been found to be much more effective than either sedative alone, and usually will give good results when either one alone will fail.

Of the hypnotics, nembutal, one of the barbiturates, has been most satisfactory. The drug should not be given to ambulatory patients. It should be taken when the patient is ready for bed. It has a prolonged effect in three grain doses.

The local application of medicaments often gives relief. Badly traumatized areas and extensive wounds should be washed with alkaline solutions. Swabbing with mercurochrome or a two per cent. solution of mallophene is soothing.

For the ordinary case of dry-socket a

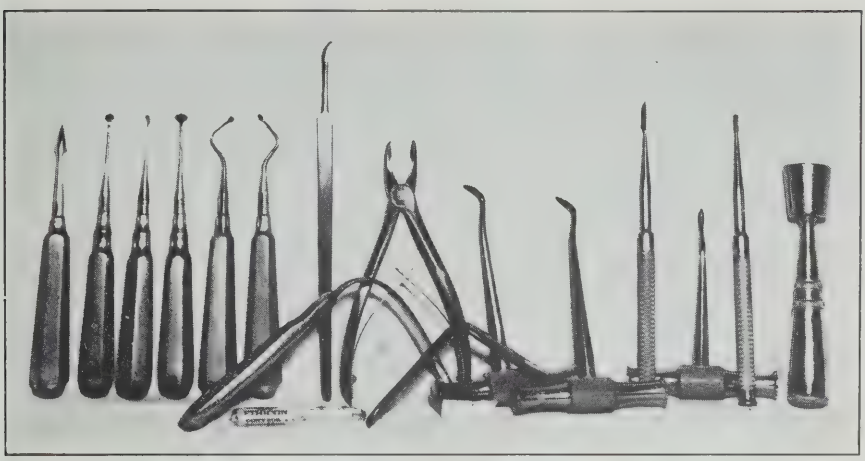

Figure 13.

Instrumentation for "complicated" surgical proceedings—Left to right—Spade periosteal elevator, Clev-Dent No. 12—Molt Curettes Nos. 1, 3, 4, 5 and 6—Austin knife—Rongeurs—Clev-Dent elevators Nos. 150 and 151 — Gardner driving chisel No. 51 — Clev-Dent elevator No. 135—Gardner bone chisel No. 52, (note long bevel)—improved Gardner mallet—Sharpe and Smith tongue retractor—Triple O Ethicon suture material—Austin cheek retractor—Half-round Gardner needle.

pack of eugenol and ozonol gauze has been used with very satisfactory results.

Post-Operative Sequelae

Post-operative haemorrhage is no doubt a disturbing factor to the patient and often to the dentist. Ordinary pressure to the socket following extraction will usually be found to be sufficient, if the coagulation and bleeding time are normal. A roll of sterile gauze which fills to excess the opening formed by the extraction of the tooth, is moistened and placed over the bleeding socket. Pressure is brought to bear by the opposing teeth, and the gauze is held firmly in position. After being held thus for fifteen to twenty minutes, the bleeding will usually have stopped. The procedure may be repeated with the pack saturated with coagulents or vasoconstrictors if desired. Moistening the pack prevents the absorption of blood and the clot which forms in the socket is not disturbed when the pack is removed. Adrenalin chloride is the most effective vasoconstrictor.

The persistent swelling following extraction that becomes hard and extends below the border of the jaw is spoken of as cellulitis. There is usually a slight elevation of temperature and the patient is more or less toxic due to lack of drainage. Treatment in these cases consists of roentgen rays of the area to determine if there is any destruction of bone. The patient should be hospitalized if possible and special attention given to the elimination and the forcing of fluids. Constant hot compresses and mouth washes are important to speed up localization. Once the condition has localized, good drainage should be established. Occasionally, it is possible to obtain drainage through the operative wound, but ordinarily that drainage is not sufficient. An opening is then made from without, keeping it well ventilated by means of wicks and tubes.

Swelling and trismus existing for a long time tend to produce an unclean mouth. The use of soft food and lack of

personal care on the part of the patient result in acute gingivitis or stomatitis. Warm alkaline mouth washes should be used frequently and the mouth should be swabbed with a luke-warm solution of potassium permanganate, one in ten thousand, daily. Should the condition progress to osteomyelitis, the establishment of good drainage is paramount. It may be noted that the teeth involved become very loose. Great caution should be used in extraction, as when repair occurs the teeth usually tighten up well and retain their vitality. Sequestra form, and should be carefully removed after they have loosened.

The maxillary sinus is very closely related to the upper bicuspid and molar teeth. Occasionally the sinus is perforated following the extraction of these teeth. It will be remembered that the sinus does not tolerate water well. It is lined with ciliated columnar epithelium which changes to squamous type when washed too often with water. Many sinuses are perforated during extraction and the condition is often unrecognized. Almost all patients with chronic fistula of the maxillary sinus communicating with the mouth give a history of the sinus having been washed out and the opening packed with gauze; infection is sure to result. When such a perforation does occur, it is best to allow the socket to fill with a normal clot and if trouble follows, refer the patient to an otolaryngolist to see that the physiologic opening into the nose is sufficient to take care of the drainage.

General septicaemia, with associated prostration and extremely high temperature, has occurred following dental extraction. This usually is the result of infection by contamination of the field of operation.

Until dental surgery has been placed on its proper plane, pre-operative and post-operative care will not receive the attention that they should. It is readily seen that the extraction of teeth and pre- and post-operative care are far more important than the average dentist believes them to be, as undoubtedly eighty per cent. of the revenue derived from dentistry is from the replacement of lost teeth.

2 *Bloor Street East.*

Conventions

Minnesota Dental Association, St. Paul, Minnesota, February 27-29, 1940.

The National Dental Centenary Celebration, Baltimore, Md., March 18-20, 1940.

Ontario Dental Association, May 27-29, 1940.

American Academy of Periodontology, Cleveland, Ohio, September 5-7, 1940.

American Dental Association, Cleveland, Ohio, September 9-13, 1940.

American Dental Assistants Association, Cleveland, Ohio, September 9-12. Headquarters Cleveland Hotel.
(Lucile S. Hodge, Gen. Sec., 401 Medical Arts Building, Knoxville, Tenn.)

Face Masks

by J. W. GERRIE, Montreal, and M. S. GINWALLA, Bombay, India
(From the Department of Oral Surgery, McGill University and the Montreal General Hospital)

A FACE mask is to plastic surgery what a cast of the mouth is to orthodontia, i.e., a study model on which operative procedures are planned, a concrete means of following the progress of a case and an excellent record of results obtained. Routinely at the Montreal General Hospital a face mask and photographs of the patient at different angles are made at least two weeks before embarking on the plastic reconstruction of the face. Similar records are made following operative procedures.

Masks or moulages have been made for many years and a number of excellent techniques have been devised. Patented processes and materials are on the market. Some have distinctive advantages, yet in all there is something lacking, whether it be a complicated process involving undue time of both patient and operator, or unwarranted discomfort to the patient, or special apparatus, or involving the study of a special technique difficult of mastery. Probably the greatest advance in recent years has been the use of the hydrocolloidal impression materials, dentocol for dental impressions and negocol in plastic surgery. Both have been used in making face masks and have the advantages of reproducing a fineness of detail especially of plastic undercut structures unobtainable with plaster, but they have the very pertinent disadvantages of being time-consuming, undependable and difficult.

After much arduous labour and disappointing experimentation our masks are now made routinely by an all-plaster technique which is simplicity itself and gives a good average product in about 30 minutes time or little more than the time required for the initial set of two successive mixes of plaster.

The materials necessary are asssembled as in Fig. 1 and comprise the face frame, plaster-bowl, and spatula, hospital green soap, plaster of Paris and a couple of drinking straws. The patient is placed in a horizontal position on a table or dental chair as in Fig. 2 and the eyebrows and eyelashes touched with vaseline. An ordinary drinking straw is cut into four equal parts and two placed in either nostril to provide an airway while the plaster covers the face. The frame is adjusted comfortably about the face above the ears. The face frame is a great help as it provides a smooth finish for the impression, a "table" for the plaster and prevents it "slopping" unduly down the neck and into the hair. We are indebted to Miss Hortense Douglas, a former

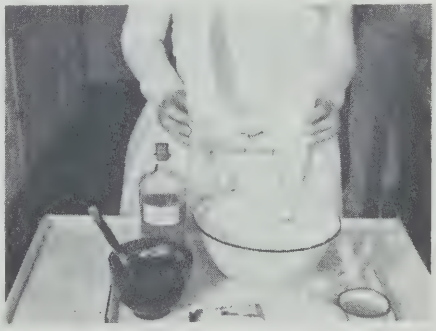

Figure 1.

Materials assembled preparatory to making a face mask. Plaster bowl, spatula, green soap, vaseline, plaster of Paris, face frame and drinking straws. The face frame is made from two identical sections of monel metal with a central slot and joined by a set screw.

Figure 2.
Patient ready for the plaster,—face frame adjusted, straws in nostrils, eyebrows and eyelashes vaselined.

Figure 3.
Starting to pour the plaster. Patient cautioned to close the eyes gently.

pathological illustrator of this hospital for drawing our attention to this frame although it is not original with her and we must confess an ignorance of its originator although we suspect Dame Clarke of Baltimore. However, it is simply made in two identical sections as per Fig. 1 and can be cut out of monel metal and joined with a set screw.

"Fast setting" plaster is to be avoided as it does not permit time to "paint" the face with the mix. A creamy mix is made of ordinary "lab" plaster and a large plaster-bowl provides a sufficient amount for one mask. With instructions to the patient to relax this is "painted" about the nose straws, Fig. 3, then the eyes, lips and chin and finally everything above the mask terminating it on the forehead below the hairline, Fig. 4. The plaster is laid on to a depth of from ¼ to ½ an inch. The patient is not unduly uncomfortable and a few reassuring words will allay uneasiness.

The mix is left undisturbed for 4 to 5 minutes when the initial set is well established. Then the frame is removed. The whole impression is gently pried loose from the face, it tending to adhere to the eyelashes more persistently than any other part. A few of these usually come away in the impression and lend realism to the finished cast. We have had no

Figure 4.
The negative completely poured to a thickness of one quarter to half an inch.

Figure 5.
The negative removed from the patient's face and being painted with green soap which acts as a separating medium.

Figure 6.
The positive mix of plaster has been poured into the negative and is ready for separation. This is effected by simply breaking the negative away from the positive in chunks.

complications whatsoever from this technique.

The impression may be immediately poured, Fig. 5. Ordinary hospital "green soap" has proved our most effective separating medium. The impression is wet under the tap and swabbed over with green soap and the positive mix of plaster poured in. The edges are smoothed and the back of the cast hollowed out to a concave shape so that the finished mask is between ¼ to ½ inch in thickness, Fig. 6. When the plaster is set, 10 to 15 minutes, the negative is separated from the positive by merely breaking away the former, Fig. 7.

For routine masks of face features this method is simple and effective. If more complex masks, as of ears or hair bearing areas, are desired, the use of sectional methods and negocol are commendable.

Figure 7.
Two completed face masks.

The world is frightfully unfair. Men of great merit go unrewarded and die in poverty. Scoundrels, by sheer bluff, achieve success and high position. Film stars get paid salaries beyond the wildest dreams of scientists, or even of Cabinet Ministers. And a man who runs a little business honestly, working ten hours a day, may easily go bankrupt.

This, I think, is a very glorious thing. For it makes us realize that Providence never intended merit to be measured in terms of money. . .

The great object of life is to train our minds and develop our personalities. It is not the object of life to reward us with Rolls Royces, butlers and private yachts. These things may be necessary to the development of some few personalities, but happily they are not to the majority.

So, when we consider whether the world is fair or not, we should not estimate that fairness in terms of money. We should ask if we have had a fair chance to develop our minds and our personalities.

If we are quite honest, I think we will acknowledge that we are always getting such chances—but how many of these chances do we throw away to chase after false gods?—Dr. Ivor Beaumont in the "Daily Mirror."

You can get anything you want done in this life if you don't mind someone else getting the credit.—C. F. G. Masterman, in Medley.

Aseptic Technique *

by LESLIE G. ROBINSON, D.D.S., New Westminster, British Columbia

FROM time to time, there has been considerable criticism of the methods in general use in dental operating rooms. These criticisms have been made by dentists themselves, medical men, and particularly, on occasion, by laymen who happen to have been more than usually observant. It seems to me that our profession can ill afford to have such criticism directed against it, especially if said criticism is merited. In observing my own office, and considering my own procedure in the light of aseptic technique, I was not long in deciding that there was much room for improvement, and I wondered whether or not I was alone in the use of methods far from ideal. For that reason, a questionnaire was prepared and sent out to a number of dentists and doctors in Vancouver, and throughout the Province of British Columbia, and when a reasonable number of replies had been received the results were tabulated. It was a comfort to learn that others also felt the need for improvement. This paper, then, is prepared from the information gleaned from this material. If there seems to be some doubt as to the wisdom of some phases of the technique generally followed, I would point out that I have not simply presented my own ideas but have included the opinions of men whom I consider well qualified to speak on the subject. In some cases, oral surgeons in various parts of the country—in other cases, teachers and experts in various departments of Universities, have expressed their views, so that no opportunity has been lost to learn of methods which have proved satisfactory in others' hands.

We should be in a position to resent criticism of our technique, from the point of view of ordinary cleanliness, by anyone, but particularly by our patients. In this connection, let me quote a few statements made by dentists and doctors: first, seventy-five per cent of the dentists who answered the questionnaire admitted frankly that they operate on broken soft and bony tissues with instruments which are not sterile and most of them were severely self-critical about it. An outstanding medical man stated: "I am glad, indeed, to know that an investigation is contemplated along these lines. It is long overdue." One prominent medical man said, "I am always amazed at the lack of consideration ordinarily given, in dental work, to antiseptic principles. This is a field of practice in which reforms are urgently indicated. Almost any pathogenic organism transmissible by droplets of saliva, could be conveyed from person to person. Such might include pneumococci, meningococci, T.B., spir. pallida, Vincent's, viruses of the common cold, and of encephalitis lethargica, poliomyelitis, and many others. In practice, of course, the number of pathogenic organisms found in the mouth of a patient, infected with any of the foregoing, will usually be small, but the theoretical possibility is still there." An author on oral surgery states: "Dental asepsis, as practised sometimes, is a veritable joke." An occasional reminder such as these should produce no resentment in our minds while such conditions exist.

Before dealing with the actual results of the questionnaire, I want to point out

* Presented before Vancouver Dental Society, April 4, 1939, and Victoria Dental Society, December 18, 1939.

what we may consider to be reasonable assumptions. Firstly, I think we may safely assume that, in replying to these questions, the picture will not have been made any worse than it actually is; rather, I think, it may be coloured slightly on the ideal side. Secondly, it must be remembered that these questionnaires are generally answered by that type of practitioner who is most concerned with the improvement of methods, and who is most alive to any effort towards improved cleanliness and efficiency in the conduct of his own practice. For that reason, we may assume, again, that the picture given by these replies is likely to be nearer the ideal than is found in the average dental office throughout the country.

In dealing with the subject matter of this questionnaire, it may be desirable, occasionally, to refer to a tabulation of results from a previous similar list of questions, sent out a few years ago, which formed the basis for an article in the Journal of the Canadian Dental Association at that time. [1]

Ordinary Cleanliness

The first question was, "In general, are you satisfied with the position dentistry occupies with regard to ordinary cleanliness; that is, the possibility of conveying infected saliva and other secretions from the mouth of one patient to that of another?" It was gratifying to find that twenty-five per cent of those replying to this question feel that they have attained a satisfactory degree of cleanliness in their own offices. Seventy-five per cent of those whom we might consider to be men of high standing in the profession are anything but satisfied with the situation, and for this reason it would seem wise to give the matter a little more thought, and to give the resulting theories more practical application in the conduct of our practices.

Handpieces, Syringes, Etc.

The second question referred to the cleaning of handpieces, handles of air syringes, sprays, and similar equipment which, in the standard form, do not permit of boiling. About one-third of our correspondents wipe these off, between cases, using an antiseptic solution. Some keep as many as five handpieces, changing after each finished case, and sterilizing the others. Sterilization of such instruments is accomplished by various methods, including the formaldehyde cabinet, antiseptic solutions, and boiling where the form of the article permits. One half of those replying admit that they do not bother with them at all—not even to wipe them off with a damp cloth.

Another question referred to chip blowers and separate water syringes. About one half of those who use these instruments admit that they do not bother trying to sterilize them at all. A few wipe them off with a damp cloth, and one or two hold the tip in the flame for a moment. In wiping off the exterior, and flaming the tip, the idea seems to be that we are concerned only with exterior contamination. It has been proven by bacteriological experiments that the chip blower is a positive sewer of infection, when not regularly sterilized. Both chip blower and water syringe may suck up strings of saliva from the mouth when the bulb or plunger is released. Most of us do not use such instruments now, but those who do should recognize the necessity for regular sterilization of these instruments.

Referring to such articles, or parts of equipment, as the head rest, light, telephone, cabinet drawers, operating tray, and the many other similar things touched with the saliva coated hands during an operation of any kind, it is apparent that almost none of those replying to the question take any precautions, or attempt

to remove contamination from these articles. One or two suggest that the nurse whose hands are not contaminated with saliva, is trained to look after the moving or adjustment of such equipment. Others suggest that the dentist should handle only the articles in his immediate field of operation, and that, if it becomes necessary to handle anything else, such as the telephone, it should be done with a towel in the hand.

In the variety of replies to these questions, it is evident that we have heard from men with a wide range of opinions, from those who have never given the matter a thought, to those who might be termed extremely fussy. It might be well for some of us who are not so inclined to be fussy, to remember that patients are observant, and that so-called fussy behaviour does draw a certain amount of publicity, whether we agree with it or not. It seems worth considering whether or not there is such a thing as being too particular about extreme cleanliness. If we were to compare the cleanliness of dental operating technique, and that of a public dining-room, for instance, just how well would we show up in the comparison? If we saw a dining-car waiter pick up a few glasses by the rims, set them aside, and, carrying fresh glasses, also by the rims, place them before us, just what would the reaction be, on our part? If a waitress gathered up some used forks and spoons, handling them by the part that had been in the mouths of other diners, and then handled fresh spoons and forks in the same way, placing them before us, would we be fussy? In our offices, our hands, well coated with Mrs. Smith's saliva, containing, perhaps, a generous supply of staphylococci, or worse, we adjust the headpiece of the chair. An hour later, Mrs. Brown appears, and, after examining her mouth, and again having our hands covered with samples of her particular brand of bacteria, we decide to adjust the headpiece again, and so mix them up well and carry the assortment back to Mrs. Brown's mouth. We may do no harm, transfer no lesions or anything of the sort, but we must admit that at least the habit is untidy. Is the waiter's action any more reprehensible than our own? Can we excuse ourselves by any plea from that sort of technique? One correspondent, obviously concerned over the situation, observes that it is impossible to control contamination at the fees we get, and wants to know how we can do otherwise.

As I said before, I am not an authority on the subject, but it does seem possible, without any great expenditure of time, to bring about a tremendous improvement in the methods followed in the average office. So far as operative dentistry is concerned, one should have in mind a fairly well established routine, so that the hands, coated with saliva, will only touch articles that are included in the routine clean up after the patient is dismissed. If any other articles must be touched, they should be handled through a towel, or be wiped off by the nurse immediately afterward. Such procedure need require no more time, once the routine has been established.

The clean up, after the patient has gone, should also be a matter of strict routine. Some of our correspondents advise the use of a lysol solution in a convenient basin. Their procedure calls for, first, the removal of all waste material, such as cotton pellets, linen strips, cotton rolls, and other similar material. Then, all instruments are immersed in the lysol bath. A cloth, soaked with antiseptic solution, is used to wipe off handpieces, operating tray, headrest, handles of lights, spray, air syringe, and other similar equipment which cannot be sterilized. The instruments may then be washed in the lysol solution, rinsed, and placed in the sterilizer.

All of us, I suppose, have operated frequently in hospitals. In the operating room, we pride ourselves on maintaining the same aseptic technique that is required of all operators there. In our own offices, we seem to shed this habit with the greatest of ease. So far as oral surgery is concerned, including extractions, of course, it should not be unreasonably difficult to establish a technique that will not permit the contamination of the hands, any more than would be allowed in the hospital operating room. If the principle of avoiding contamination of the hands is consistently maintained, it follows, as a matter of course, that contamination will not be conveyed from one patient to another. In general operative dentistry, as well, there could be a well established routine, so that the hands, coated with the patient's saliva, should not touch articles that are not included in the routine clean-up afterwards. Judging from the answers to certain questions in the questionnaire, it would seem that no effort is made, at least in the vast majority of cases, to remove saliva coated finger prints, unless they happen to have been tinted with red, from blood or lipstick.

Up to this point, the question has been concerned with general operative technique. If an attempt at asepsis is desirable in operative work, it surely should be considered essential in the technique of extractions and oral surgery. Here, perhaps a word about the terms "sterile" and "aseptic" may be in order. Contrary to general belief, the terms are not synonymous. The accepted meaning of sterile, in the bacteriological sense, is "free from living micro-organisms." Aseptic means "free from putrefactive, or pus-forming bacteria, and other harmful organisms." In the great majority of clean operations, the procedure is begun in a sterile field, and finished in an aseptic field. Hence, it is evident that while sterility, in the bacteriologic sense, is impossible, or next to impossible, in the general run of minor oral surgery, asepsis is by no means impossible. There is no reason why the work cannot be started with sterile instruments, and seldom any reason why the field cannot remain aseptic until the work is completed, if the preparations are carefully made. Dr. Gordon Cameron said, in a recent article, [2]—"In dental surgery, the problem is just as much the avoidance of introducing into one patient's mouth bacteria which are derived from another patient, as it is the prevention of introducing into the depths of his tissues, organisms which were harmless while thriving on the surface of his mucous membrane. The former is always avoidable, and, without impracticable precautions, the latter is inescapable. Local tissue resistance, fortunately, is much higher in the oral cavity than in some other parts of the body."

Sterilization

The subject of sterilization is not included in the questionnaire under discussion, but one or two suggestions given by well known men, may not be amiss. Underwood, in his textbook on sterilization,[3] says,—"It is not safe to permit the emergency sterilization of instruments in brief intervals of time, or by any short cut method which has not been thoroughly established." He gives as an example,—"In a large hospital, the practice was established for the sterilization of cutting instruments, of rinsing them in scalding water, after which they were immersed in seventy percent alcohol for twenty minutes. This method was followed for a long period of time successfully. Ultimately, an accident case was brought into the surgery, and shortly after, two patients died from infections of gas bacillus. Careful investigation brought to light that this had occurred from the use of infected cutting instru-

ments. Exposure to alcohol for a full hour failed to render the instruments sterile when infected with this spore." Recently, in Alberta, an authority was called in to determine the cause of two deaths among children receiving toxoid injections. Solution, syringe, and needle were found to have been satisfactorily handled and sterilized. A further check up revealed that a wad of cotton, fully soaked in seventy percent alcohol, had been used to wipe off the needles before injecting. Investigation showed that this cotton had been contaminated by contact with a purulent wound previously, and, by error, had been left there. Although it was soaked with seventy percent alcohol, it was proved to have been the source of the infection that caused the deaths. Underwood claims that the use of one percent sodium carbonate solution, instead of plain water, hastens the destruction of bacteria and spores. He, too, mentions the routine procedure of having a five percent lysol solution in a convenient basin, so that all instruments, particularly following an infective case, may be submerged therein, and left for an hour to soak, before being washed. The purpose, of course, is to avoid the spread of infection, and to protect nurse and dentist. This procedure can never be considered complete sterilization. He continues,—"In some hospitals, it has come to be quite common practice to sterilize instruments with the water level well below the tops of the instruments. This is not safe practice, so far as sterilization is concerned, nor is it advisable, from the point of view of the care of the instruments. Instruments will not rust when completely submerged in water that has been boiled for a few minutes. For this reason, when fresh water is placed in the sterilizer, it should be boiled for at least ten minutes, before placing instruments in it."

Asepsis in Oral Surgery

The balance of the paper is concerned with the aseptic side of the technique during extractions and oral surgery.

The first point that comes to the attention of the operator may be the anaesthetic solution. From a previous questionnaire, it was learned that about ninety-five percent of dentists use carpules, and that at least eighty percent of these take no precautions with carpules on introducing them into the syringe. The end of the carpule may be clean—it certainly is not sterile, and the chain of sterility in the handling of anaesthetic solution is broken. Approximately seventy-five of those who use carpules save the partially emptied carpules for use on subsequent cases, without further precautions against contamination. The elastic condition of the rubber plunger, when released from pressure, causes a draw back of the fluids of the tissue, so that even blood may be seen flowing back into the solution of the carpule occasionally. It would seem safe to state that each carpule used, unless pressure is maintained while the needle is being withdrawn, is certain to contain some of the fluid present in the tissue around the needle point. It is a much safer procedure not to use these carpules over again, but if a thrifty tendency is predominant, the carpules may safely be boiled, with no deterioration of the solution. If these partly emptied carpules are boiled, it is well to make certain that the solution has not disappeared in the process.

About four-fifths of our correspondents, after sterilizing instruments used in extractions, keep them on linen which is not sterile, and about the same proportion use these instruments, without further sterilization, on subsequent cases. The replies to the tenth, eleventh, and thirteenth questions, indicate that from three-fourths to four-fifths of the class

of dentists we have been discussing—ourselves, in fact—operate on broken soft and bony tissue with instruments which are not sterile. I have been wondering just what the reaction would be to this statement—a statement which I would not like to see made public in the press. One would readily imply from the answers to these questions that almost every man replying to them felt that something ought to be done about the question of sterilization, but he just didn't know what to suggest. Many excuses were offered: "We can't do anything else at the fees we get." "You can't keep these instruments sterile, and you haven't time to sterilize them again before use." "I know they aren't sterile, but I dip them in antiseptic solution." "I hold the business end of the forceps under the hot water." "I lay the forceps and elevators, etc., down on linen which is not sterile, but the business end hangs over the edge," and so on. How far would these arguments go in a hospital operating room? And yet we discuss the treatment of dry sockets from the post-operative point of view! In the previous questionnaire, out of fifty-five replies received to the question as to treatment of dry sockets, there were forty-five methods of treatment. They included everything known, from anacin to hospitalization of the patient under the care of a physician. There were ice-bags and hot packs; poloris and vita-cell; lancing to induce secondary haemorrhage; Bipp and antiphlogistine; soketol, healatone, guaiacol and campho-phenique; iodoform gauze, wondrapak, peripak, and all the other paks, and about everything else one could mention. About three, out of the fifty-five, gave a simple solution—asepsis, accompanied by as little trauma as possible, and the careful retention of the clot. Prevention is the best cure! In a separate specialist's questionnaire, replies to which were received from all sections of the continent, the opinion was absolutely unanimous that these three points were of supreme importance in the avoidance of post operative complications—asepsis, a minimum of trauma, and retention of the clot.

One man asked the question,—"Since we do use instruments which are not sterile how is it that we always seem to get away with it? There isn't one case in a thousand that gives much trouble." Another said,—"I worked for many years with a man who never even cleaned his instruments, let alone sterilize them, and I have never known him to have trouble. How does he get away with it?" Well, again I am forced to admit that I am no authority on the subject, but my guess would be that if they did get away with it, they had the answer to the questions in their own pants pockets. The first coin they took out would show the words "Dei gratia," which, being translated, means, "By the grace of God."

The most difficult problem of all seems to be that of keeping the instruments sterile, once they have been sterilized, and there is no avoiding the necessity of sterile instruments for each operation where tissue is broken. Instruments removed from the sterilizer and dried in or laid on linen which is not sterile are no longer sterile, and cannot be accepted as sterile until they have been again put through one of the accepted processes of sterilization. I am informed by the head of the Provincial Laboratories that the placing of the instruments in a cabinet or compartment wherein they are subjected to formaldehyde gas is quite ineffective. Of course, if we have the type of practice where everything goes precisely as scheduled, the nurse may lay out the necessary instruments in advance, fully sterilized, before the patient comes to the chair. In the general run of offices, however, we frequently meet with emergencies. If we start a cavity preparation

in a second molar, for instance, and find pulp involvement, and decide to extract the tooth; or, if we prepare for the extraction of a simple upper bicuspid, only to find that hypercementosis has thrown a joker into the works, we cannot expect the nurse to produce the necessary instruments miraculously, in a sterile condition. I have been trying to develop a folder designed to avoid this difficulty of not having sterile instruments ready for any unexpected cases that may appear. You will see that it is made of heavy unbleached cotton, of a size that will fit the cabinet drawers. There are four eyelets in the corners, designed to fit over studs in the corners of the drawers used, so that the folder will be held taut. There is a full-sized flap cover, made so that a heavy wire handle may be fitted into the outside corners of the cover to permit easy handling, and to hold the cover in position. Several of these folders are prepared so that while one batch is being used others are being autoclaved. Periodically, all the instruments are removed and sterilized, after which they are transferred to a fresh sterile folder by means of sterile tongs. The weighted flap cover is laid in position, and from that time on, nothing is permitted to touch the inside of the folder excepting sterile tongs, used to remove the instruments as required. If a simple extraction is to be done, the one instrument needed is removed. If what is thought to be a simple case develops complications, a sterile towel is laid out, packages of sterile swabs dropped on it, and in a few moments the operator is prepared to handle the work under aseptic, not sterile conditions. Of course, certain objections may occur to you at once. It has been suggested that the instruments would soon become badly rusted if they were not dried immediately after being removed from the sterilizer. In the few years that I have used this method, I have not noticed any difference in the rusting of the instruments. Another objection is that it might be difficult to recognize the various instruments by the small part of them that is exposed when the cover is laid back. For myself, I have learned to recognize the instruments by the exposed ends of the handles, and if there is any particular difficulty in that respect, it should be possible to arrange to have them placed in a certain definite order. At any rate, I have found the system workable, and it is offered to you for what it may be worth.

Hypodermic Needles

Hypodermic needles are boiled after use, by about eighty percent. The balance simply immerse them in an antiseptic solution of some sort without boiling. I was not prepared to question this sort of sterilization, so I asked the head of the Provincial Department of Health for the answer. He tells me that no antiseptic solution is infallible for the sterilization of needles. Clots of blood, bits of tissue, or other débris might clog the needle, so that the solution would not reach all parts of it. He said that there is no certain method of sterilization other than boiling. After boiling, the majority immerse the needles in a solution similar to the Metaphen germicide to protect them until required again. Some others plunge them into sterile vaseline, or cotton rolls.

Swabs

Probably the most outstanding departure from aseptic methods revealed by this or the previous questionnaire, is indicated in the fact that over two-thirds of those replying stated that swabs used for extractions were prepared on the spot by rolling cotton from the cotton holder between the fingers. However clean the hands were before the operation started, it is quite impossible that they could be so after the first few movements; that is,

surgically clean. The face of the patient, drawer handles, spray, air syringe, and all the other articles touched, unless previously rendered sterile, would contribute bacteria to the fingers, and the cotton, rolled between the fingers would certainly pick up a generous quota of these organisms. Here, we should remember the previous quotation from Dr. Gordon Cameron's paper, in part, as follows,— "The problem in dental surgery is the prevention of introducing into the depths of his tissue organisms which were harmless while thriving on the surface of his mucous membrane." This method of handling cotton has a striking similarity to a part of the technique followed in the bacteriological laboratories. Bacteriologists transfer organisms from a suspected area, to selected culture media where they are most likely to grow rapidly. For the purpose, they use materials of a nature similar to those found in human tissue, such as blood serum, various sugars, salts, and other substances. Human tissue, with the natural resistance lowered by trauma and shock, provides an ideal field for growth and activity of certain strains of disease-producing bacteria. One of the laboratories' principal methods of transferring bacteria, is by means of cotton swabs wound on an applicator stick. Just why we should use the same method, with a quite different object in view, but the same end attained, has only one answer. Where there is nothing else prepared, it is too handy, and it is less trouble than to have sterile swabs ready. Cogswell, [4] in his description of technique in oral surgery, advises against the use of swabs of any kind, except for cleaning surface tissues. He feels that there is too much chance of shreds of the cotton, quite unnoticed, being caught and retained by sharp edges of bone, and left in the wound, to cause disturbance afterward. He uses only a fine suction point to clear the wound—a device that is excellently described in his book, and simply, and inexpensively prepared for use in the office. If swabs are to be used, and they seem to be indispensable, one satisfactory method of preparing them is to get some of the six inch cotton rolls, of the smaller diameter, and cut sections from the roll diagonally, each cut at right angles to the last, so that the binding at the centre of the section is intact, but each end is slanted to a convenient point. It makes a much more effective point, and there is less chance of loose ends of cotton being left in the wound. A dozen or two of these swabs may be wrapped in a small piece of cotton, and a quantity of such packets autoclaved with the towels and folders.

Normal Clot

Agreement seems to be fairly general that the freshly opened socket of the alveolus must be protected from contamination until it has filled with a normal clot. One-third of those answering the question do not follow this plan, but in a question asked of several specialists, opinion was unanimous that post-operative complications were reduced tremendously by following this routine procedure. It was almost as unanimous that if the clot does not form within a reasonable time, the insertion of some sort of bland dressing was indicated, for a short time. Vaselined gauze strips, with different obtundents of antiseptics, or both, were mentioned. In this same specialists' questionnaire, the opinion on lancing to produce a secondary haemorrhage was discussed, and again, the opinion was general that such treatment is useless, particularly after the formation of the so-called dry socket. Dr. Sanford Moose, of the Department of Oral Surgery in the College of Physicians and Surgeons, San Francisco, says most emphatically, that once a dry socket has started, there is no possibility of its healing in any other

manner than by nature's process of necrosis of the lining of the socket, followed by exfoliation of the necrotic tissue, with the formation of fresh granulation tissue underneath it.

One-fifth only, of the correspondents, permit immediate rinsing of the mouth after extractions. Three years ago, in a former questionnaire, the situation was reversed. Only about one-fifth did not permit rinsing for some hours. It is apparent, that in the past few years, much more importance is being attached to methods that promote the formation, and encourage the retention of the natural clot, as the ideal protection against post-operative complications.

More or less as a point of interest, questions were asked about suturing, and the use of prepared packing materials. In the last questionnaire the tendency seemed to be to drift away from the use of sutures, where it was possible to avoid them. Surprisingly, this time, all but a very few indicated that they used them fairly frequently. Three-fourths of the correspondents use prepared packing of some sort in the sockets as routine procedure. Just how we may reconcile the statements that eighty percent protect the socket until the clot has formed, and almost a similar number use packing, seems difficult. We may take it, probably, that most of us try to protect the socket until the clot is formed, but if the clot fails to form within a reasonable time, or, if for any other reason packing is indicated, we are prepared to use it. One well known oral surgeon in San Francisco, whom I had the pleasure of watching at work for a few weeks, used a few grains of pure iodoform powder in the bottom of each freshly opened socket, as routine procedure, and claimed excellent results.

I think that we must agree that the material gathered from these answers provides food for thought, and demonstrates, without question, that our profession, which prides itself upon the utmost cleanliness throughout office routine, must take immediate steps to correct these obvious faults while it may be done voluntarily.

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Before we can hope to know anything about Canada it is most important to try and realize the extent of the space she covers. I will give illustrations which may stir the imagination of people in England.

If you could turn this Dominion over, using the Maritime Provinces as a hinge, Canada would stretch across the intervening Atlantic and cover the British Isles, France, Germany, and a part of Russia. Secondly, the United States of America could be comfortably fitted into Canada, leaving a certain amount of territory over. Lastly, the Mackenzie River, 600 miles from its mouth, is two and a half miles wide.—Lady Tweedsmuir in the "Sunday Times."

I do not believe that money is important in itself or important to everybody. It is one of those things, like beauty, which some characters need more than others; without which some people are spiritually starved, yet with which others are spiritually destroyed.—Sylvia Thompson, in Letter-Mag.

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

Cheilitis of Lips

PROBLEM:—A man, aged 26, whose only complaint at the time was enlarged tonsils, had the tonsils removed in January 1936 by a competent specialist. Recovery was normal until the tenth day after operation, when he began to notice that the skin of his upper lip became white and peeled off in a thick layer. The lower lip soon took on the same colour and peeled as did the upper lip. Since that time his lips have troubled him much with burning and stinging sensations and a feeling of swelling; he states that at times actual swelling takes place. The tongue is not affected. There is a bad taste in the mouth which he has not been able to describe, but it is not metallic. He had amalgam fillings in several teeth when the trouble began but had them all removed with no beneficial result. One gold crown in front has made no difference in the symptoms. His general health has remained excellent. The diagnoses considered have been cheilitis exfoliativa and glandularis, congenital syphilis with nerve involvement (all tests have been negative and a therapeutic test with ten injections of bismuth salicylate did no good). I tried to put the blame on the tonsillectomy but could not. In the severe crusting stage, when the patient neglects the lips and fails to apply some emollient cream, one must think of lupus erythematosus. The dental fillings were suspected as the cause till their removal, when he failed to improve. I should appreciate your opinion as to the possible diagnosis and the cause of this patient's symptoms (stinging, burning and feeling of swelling of the lips). Could this trouble have been caused by the tonsillectomy? Could it be due to sensitization to foods (elimination diets were tried but co-operation was poor)? Tooth paste was eliminated as a cause. Do you think that roentgen treatment to the lips would help, and if so what dosage would be best? Can you suggest any line of treatment which might help the condition?

ANSWER:—The disorder this man has on his lips is probably cheilitis exfoliativa or perhaps cheilitis glandularis. The periodic swellings that occur speak more for cheilitis glandularis, but certain characteristics of this disorder are lacking in the history. There is a tremendous increase in the size of the glands of the lips to the point at which they can be felt as tiny hard nodules the size of a pinhead. Their orifices are patulous, exude a mucoid or serous fluid which dries into crusts and admit a fine probe for an appreciable distance. Gluing of the lips, especially during sleep, takes place. Suttan, who studied this condition, thought that there was a congenital increase and hypertrophy of the glandular elements followed by atrophy.

The more likely diagnosis in this case

is cheilitis exfoliativa, which, many observers feel, is a form of seborrhea or seborrheic dermatitis. Ayers thinks that some cases are due to ultraviolet rays. There is often accompanying seborrhea of the scalp. As in the case of this man there is exfoliation of scales and crusts, which may sometimes be quite thick. A neurotic element may be present compelling pulling and working with the crusts until they are removed together with new epithelium, exposing a reddened, fissured surface, at times bleeding. The patient may be given to licking of the lips as in perlèche, to allay the burning, drying feeling present.

Lupus erythematosus may be ruled out. The scales in this disorder are closely applied and do not exfoliate in the manner described. Neither is there crusting or swelling such as this patient has. Lupus erythematosus does not gain such large proportions suddenly; there should be some evidence of atrophy by this time and there would likely be, though not necessarily, other typical areas involved in addition, such as the butterfly area of the face.

Were this disorder due to electrolytic currents set up by dissimilar metals in tooth fillings, there would probably be lesions present in the mouth, particularly at the sides of the tongue. It is difficult to conceive of their action on the lips, particularly when dried out, in preference to the nearer and moister capillary spaces between the tongue and the cheeks. A cheilitis of such duration could hardly be a sequel of a tonsillectomy. There could be inflammation for a short time resulting from sensitivity to a local anaesthetic. Other causes of such intolerance to contact substances, such as tooth paste, seem to have been eliminated. A further search in this direction is indicated, the greatest care and prolonged observation being necessary to eliminate all possible irritants. The subject should keep a diary wherein he records his activities minutely and from this materials for trial and elimination will suggest themselves.

Active treatment may take the form of that for seborrhea. A sulphur ointment, from 0.5 to 3 per cent, may be used. The scalp should receive care simultaneously. X-rays are frequently useful, at least temporarily. These should be used in fractional doses, from 75 to 87½ roentgens once a week. If material aid is not had from their use, the number of exposures should not exceed six or eight. Otherwise as many as twelve treatments may be given. Radium may be used similarly. If sulphur irritates, soothing cooling applications may be used instead, such as cold cream in which is incorporated from 0.25 to 1 per cent menthol or 0.5 to 1 per cent phenol. Queries & Minor Notes, *J.A.M.A.*, 111: *339* (July 23) 1938, *per Bul, Chicago D. Soc.*

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(1) The public is badly served, dentally.

(2) The number of dentists is not increasing and half of those in practice are practically bankrupt.

(3) The dental trade, as a whole, is neither sufficiently successful today nor sufficiently sure for tomorrow, when it should be a veritable Rock of Gibraltar in the business world.

—George Wood Clapp in Dental News.

There are many isms today to perplex us—nazism, communism, fascism and so forth—but most of them will cancel each other out. There is only one ism which kills the soul, and that is pessimism.—Lord Tweedsmuir, in Reader's Digest.

Practice Management

Habits

by JOHN B. WOODMAN, D.D.S., F.I.C.A., F.I.C.D., New York, N.Y.
(Condensed from The New York Journal of Dentistry.)

The Telephone

ONE of the most valuable assets in our office is the telephone, yet how often does the professional man or his assistants become careless in its use. All too frequently do we hear one or the other of the following greetings extended, when the phone rings: "Lo," "Yep," "Whozecallin," etc.; habit, nothing more or less. Is it not just as easy and much more courteous to answer with a polite, "Good-morning, this is Dr. Blank's office," or, if the person calling does not make himself clear, why not try "I beg your pardon, this is Dr. Blank's office?" Also, arguments conducted over the phone; loud talk; off-colour stories or curse words have no place in the decorum of a professional office, and especially should care be taken not to mention the names of other patients; discuss cases and fees; hold family conversations, etc., if there are patients in the office, within hearing distance of the phone.

Another careless habit is our neglecting to make return calls, if a person has called at a time when we were busy, and has been informed that we will call him later. This does not mean tomorrow or next week but at the first favourable opportunity when we are not engaged.

Correspondence

Is it not another characteristic habit of a large number of professional men to neglect answering their correspondence promptly? It is so easy to pigeon-hole a letter or to say, "Oh well, I'll answer that tomorrow or next day," and then forget it entirely or until it accidentally turns up later. Why not get in the habit of attending to your correspondence promptly and have the satisfaction of feeling that at the end of each business day, you have left nothing uncared for.

One of the major assets of the dental profession is the goodwill of the medical profession. Frequently, we have patients referred to our offices by physicians for radiographic examination or diagnostic advice. How often do we acknowledge our appreciation of this evidence of confidence and goodwill, and in what manner? Do you simply phone the results of your clinical findings to the physician or his secretary, or wait until you happen to see him before apprising him of your diagnosis? Is it not worth a few minutes of your leisure time to sit down and either write a personal letter, or dictate one to your secretary, with a detailed report of your observations and recommendations, and thank him for his courtesy and confidence in having referred the patient to you?

Office Records

How about your habits in the business office? Are your records completed and the proper fees entered at the end of each business day? How many radiograms remain unmarked and unfiled? How many "thank you letters" remain unsent to patients or friends who have referred new patients to you? Trivial neglects perhaps but better classified as careless habits, *and don't try to place all the responsibility on your secretary or assistant.* She is human, too, and usu-

ally governs the conduct of her duties by your precept and example.

Neatness

Do you have the habit of being neat, i.e., "A place for everything and everything in its place," or are you one of the ever complaining type that can never find anything when it is needed, and immediately blames the assistant for having misplaced or lost something? Do you enjoy having dirty towels hanging from the back of the dental chair or lying carelessly in the most convenient spot that you can find to drop them? Do you allow your assistant to wear a soiled uniform, or do you yourself, with a sense of "Scotch economy" wear a gown a day longer than it should be worn? Do you, as a matter of habit, wipe your instruments on the towel about the patient's neck or on your own gown? Do you have your bracket table and cabinet top cleared and wiped clean before seating each new patient? You don't have any of these careless habits? Maybe you are the exception but, I've seen them in dozens of dental offices, and have been guilty of some of them myself until I began to check-up a little on my own habits.

Cleanliness

One of the most careless and inexcusable habits that we seemingly disregard, consciously or unconsciously, is the hygienic care of our hands. How often do you answer the phone; retrieve a fallen instrument from the floor; work at your laboratory bench, etc., and then again place your hands in the mouth of the patient without having made the least effort to wash them? It takes but a minute to perform this small but *all-important task* but, is it not worth the effort to let the patient know that you are ever conscious of simple hygienic measures? And while we are on the subject of personal hygiene, let us consider a few other items that we may treat carelessly. Do we, when we have that odd smoke between patients, take care to deodorize our breath before returning to the chair? Bear in mind that to a non-smoker the odour of tobacco may be quite objectionable. Do we make certain each day, especially in warm weather, that we are not the victim of body odours? Are we careful to brush our own teeth when we return to the office after eating, or do we have particles of food remaining in the inter-proximal spaces? Do we make certain that our nails are clean? Do we start each day with a clean shaven face, looking as a professional man should?

Section 7 of the American Dental Association Code of Ethics reads as follows:

> "One dentist should not disparage to patients the services of another. Criticism of operations which are apparently defective may be unjust through lack of knowledge of the conditions under which they are performed. However, the welfare of the patient is paramount to every other consideration and should be conserved to the utmost of the practitioner's ability. If he finds indisputable evidence that a patient is suffering from previous faulty treatment, it is his duty to institute correct treatment at once, doing it with as little comment as possible and in such a manner as to avoid reflection on his predecessor."

The dentist ought therefore to avoid disparaging statements. He should not attempt to detract from the common good by aspersions or implications. This is not meant to suggest that we, like Pollyanna, go about our affairs flattering and saying, "How gorgeous, how gorgeous, how intriguing." No person enjoys criticism. Surely there is always something fine and good to be seen in everyone.

The Forum

• SHOULD DENTISTRY SPONSOR A CHANGE FROM THE STATUS QUO?

by C. E. RUDOLPH, D.D.S., Minneapolis, Minn.
(*Condensed from Dental Outlook, December,* 1939.)

TODAY, the public is demanding that balance be maintained and that our dispensing methods overtake our achievements in science. Society desires for itself the results of our progress to a greater degree and in a more just manner; it feels that its sacrifices for the professions have been sufficient in the past to insure adequate medical care for all.

The professions must not forget that those forces which made them secure can also destroy that security.

It may be difficult for you to believe that medicine proper will concern itself with dental problems very slightly when it deals with civil authority in the matters of dispensation where tax money is involved. In all laws proposed in legislatures to date, dentistry has been omitted. There are a number of these laws.

Medicine cannot afford to sponsor such an expensive child as dentistry in a change where such huge amounts of tax money must be provided. After all, the sordid reality of survival rises up and outstares the most kindly disposed individual or group even at this stage of spiritual development. Sad, but it is true.

The dental profession is either important enough to society to propose and demand its proper place in any health program instituted in this country, or it should cease fussing and bothering about the status of the profession.

Why should this profession wait for anyone to blaze the trail in the direction of progress? It is perfectly obvious to all of us that the child health avenue is one which we could emphasize and whose problem we could solve, at least partially, in our field—if only we would. An offer from a health group which is not already subsidized by government is something new and would, no doubt, be a revolutionary event. A child program, which could be subsidized by the government, would do a number of progressive things. Primarily, it would help to conserve our greatest asset—future citizens. It would serve as an evolutionary step in the ultimate, complete socialization, if and when that stage is reached, and it would give both the profession and the taxpayer the health treatment necessary to a successful program. It would train the child to demand dental care for the sake of general health and not for the mere filling of a tooth when he becomes an adult. It would conserve the first few years of the newly-graduated dentist's time while he still has the enthusiasm and energy to do hard jobs; it would train the young dentist to think along preventive lines to a much greater extent; and it would develop humanitarian tendencies and responsibilities in the dentists themselves to a much higher degree than at present. All in all, I can see no real danger to the profession in such a program, and I can see much good.

The longer the professions procrastinate in this matter of making the first move, the more they are going to be accused of mercenary motives and the harder the bargain driven if actual socialization is instituted for the remainder of the population.

It is as natural for progressive health laws to come before the voting public as any other form of legislation; and it is the duty of that stratum most affected to be most interested. If it wishes to con-

tinue as guardian of this phase of human life and activity, it must be the leader in all things pertaining thereto.

• A NEW HEALTH INSURANCE PROPOSAL

REPRESENTATIVES of government agencies, physicians, unions and civic groups met in New York City on December 9th, under the auspices of the American Association for Social Security, and adopted a draft of a Bill of Health Insurance to be pressed before the legislatures of the various states.

Although dentistry is included in the Bill, the organized profession was not consulted, nor were accredited representatives of dentistry invited to participate. To the best of our knowledge, one dentist allocated to himself the right to decide the destiny of our profession in the framing of this Bill which purports to change the method of dental practice in America.

The bill proposed provides for tax contributions by employers, employees and the State, with coverage limited to persons earning less than $1,500 to $2,000 a year. Medical and dental benefits would be made available to the families of workers as well as to the workers themselves.

The plan contemplates the payment during periods of illness of cash benefits for twenty-six weeks after a seven-day waiting period.

Taxes would be collected through a stamp plan to eliminate the necessity for complex wage reports from employers and to make it possible to determine a worker's eligibility at a glance.

As far as dental service is concerned, the measure would allow simple fillings and extractions and "such other dental care as is necessary to preserve health."

Three methods of payment would be open to physicians and dentists — per capita payment, salary or fees for service.

Any medical or dental practitioner would be eligible to participate in the system. The patient would have free choice of his doctor and the doctor would have full freedom to accept or reject a patient.

Administration would be under the supervision of a non-salaried board modelled after the State Board of Social Welfare. It would consist of four employer representatives, four labor representatives, five representatives of the medical and dental professions, the State Commissioner of Health and the Commissioner of Health Insurance. Similarly constituted councils would be appointed in each local district.—*N.Y. Jour. of D., Jan.,* 1940.

• RESEARCH

BIOLOGIC research has laid the foundation for correct diagnosis and the proper treatment of dental and oral diseases. It matters not how strongly some method of treating a dental or oral disease is recommended by an enthusiastic clinician or manufacturer; unless this method is based on the fundamentals of chemistry, physiology, histology, and pathology, it will fail and soon be forgotten. Treatment of the pulp and of the periodontal tissues will be successful only if the pathology of these tissues is carefully considered. Too often, however, just the opposite method is followed: somebody devises or recommends what he thinks is a method for the "cure" or "eradication" of some lesion or condition, and then creates his own "made-to-order" tissue pathology in order to justify the clinical method in the eyes of his fellow practitioners. This procedure should be emphatically discouraged. There are many conditions and diseases of the teeth and mouth, the causes of which are unknown. There are good methods of treatment that can

be relied upon, the exact working of which is not fully understood. The members of the dental profession should be made aware of the fact that an honest admission of lack of knowledge is far preferable to a pseudo-scientific, unsound explanation. — *Rudolf Kronfeld, B.S., M.D.S., D.D.S., Chicago, Illinois.*

Dr. Kronfeld is Professor of Dental Histology and Dental Pathology and Director of the Foundation for Dental Research, Chicago College of Dental Surgery, Dental School of Loyola University, Chicago.

• THE EFFECTS OF TEA DRINKING

by G. W. HALPENNY and H. E. MacDERMOT, Montreal.

(Conclusions of paper in Canadian Medical Assoc. Journal, Nov., 1939.)

GOOD tea, brewed for five minutes, produces mild and pleasant stimulation, in no sense corresponding with the violent, unpleasant action of its main components, caffeine and tannin, when these are given separately or in combination.

Strong tea, brewed 10 minutes, may produce some mild discomfort, but the addition of milk nullifies this.

Cheap tea, weak, may suit some palates, and has no objectionable effects, but in strong infusion is apt to be unpleasant.

The effects of tea on gastric acidity and peptic activity are slight and variable. Tea does not increase acidity.

Tea does not seem to alter the basal metabolic rate.

• ADULT DIET

by SIR EDWARD MELLANBY, K.C.B., M.D., F.R.S., K.H.P., London, England.

(Excerpt from The Canadian Medical Association Journal.)

IT is difficult to lecture the adult on his food. At this stage of life eating is one of the joys of existence, and he generally prefers, so long as he is feeling well, to eat what gives him pleasure rather than what is good for him. He would be well advised, however, to include a pint of milk in his daily diet and to look with favour on eggs, green vegetables and other protective foods. He would then be a much fitter person and his days of chronic ill health, which come ultimately to most of us, would be delayed. Some people avoid milk because they say it makes them fat. So it does, if it is ingested simply as a drink like water with no food value. Milk has, of course, a high energy and food value apart from its vitamins and salts. It ought to *replace* some of the bread, sugar or other energy-bearing foods such as cakes, biscuits and chocolate. With well-to-do persons over 40 living a sedentary existence milk might well replace two of the three lots of meat of all kinds they commonly indulge in daily.

• SILICATE CEMENTS

by WILMER SOUDER and IRA C. SCHOONOVER, Washington, D.C.

(Excerpt from The New York Jour. of D.)

THE following practices are appropriate in handling silicate cements:—

1. Mix the silicate and powder on a chilled slab. (Dew must not form on the slab.) The lowered temperature enables the operator to thoroughly wet each powder particle with a minimum chemical reaction during the mixing, thus minimizing the injury to the chaining reactions in the gel.

2. The maximum amount of powder (permitting satisfactory restorative operations) should be incorporated in the liquid. This will keep the gel component at a minimum.

3. The powder should be weighed and the liquid measured to a definite proportion so that the mix may be made quickly without continuous additions of powder or waiting for the cement to partially set to a satisfactory consistency.

4. The mixing should be speedy so that the final reactions may take place, undisturbed, in the cavity. The chain-

ing and welding of the individual additions of material will be enhanced.

5. Wherever possible, the restoration should be molded to a finished state.

6. The cavity should be lined and the restoration varnished to prevent migrations from the cement to the pulp or from the cement and oral cavity.

• DIET: A PREDISPOSING FACTOR IN THE AETIOLOGY OF VINCENT'S INFECTION AND PERIODONTITIS

by R. M. KIRKPATRICK, D.D.Sc.,
Dental Research Scholar of the University of Sydney.
(from The Dental Journal of Australia, Feb., 1939)

COMMENT.—Since some of the animals of each group (of the experiment using rats) became infected after inoculation with fuso-spirochaetal material, the finding that only Groups Nos. 1 and 5 showed infection after every inoculation is not significant from a statistical point of view. A much greater number of rats would be necessary for this proof.

These findings, nevertheless, corroborate to some extent our present-day knowledge of the occurrence of Vincent's infection and periodontitis. Infection occasionally occurs in patients living on a reasonably good diet, but most frequently occurs when the diet is poor, especially when poor in dairy products, whole-cereal products, fruit and green vegetables, which are collectively rich in vitamins A and B_2.

The investigation made by Clements into the aetiology of tropical ulcer suggests that a diet rich in carbohydrates, low in fat and poor in protein, either partially or completely deficient in vitamin B_2, acts as a predisposing factor. As stated above, tropical ulcer is a similar affection to Vincent's infection of the gums. His work on the oxygen-reduction potential of tissues indicates that the skin of rats fed a diet deficient in vitamin B_2 possessed a lower potential than normal. This in turn implies that such tissues more readily yield oxygen and thus become a more suitable pabulum for anaerobic organisms such as those of the Vincent's group. This latter deduction has not yet been proven.

The results of this present work suggest that the combined vitamin A and B_2 deficiency has a greater katabolic influence on the gums than a vitamin B_2 deficiency alone. This finding lends support to that of Mellanby and King that a vitamin A deficiency predisposes the gum tissues to periodontitis.

SUMMARY.—A clinical investigation of gingival conditions was carried out on fourteen Papuan natives who were all fed the same basal diet. The natives were grouped so that different vitamin additions were given them.

The result of this experiment indicated that the addition of vitamin B_2 to their diet had a beneficial effect upon the gingivae.

Later, field observations of the oral conditions of about 2,000 natives in New Guinea were made. Statistical analysis of the data obtained indicated that a partial deficiency of vitamins A and B was associated with Vincent's infection and suppurative periodontitis.

Experiments on animals were conducted to ascertain the effect upon their gingivae of similar diets to those of the natives. The result of this work suggested that a combined vitamin A and B_2 deficiency in conjunction with a high carbohydrate intake had a pronounced katabolic influence on the gums. Such deficiency appeared to have a more detrimental effect than a deficiency of vitamin B_2 or vitamin C.

CONCLUSION.—Observations made in the clinic, in the field, and in the laboratory collectively suggest that a high carbohydrate diet in conjunction with a partial deficiency of vitamins A and B_2 predisposes the gums to Vincent's infection and periodontitis.

• B. ACIDOPHILUS AND CARBOHYDRATES IN DENTAL CARIES

FURTHER evidence that the sweet tooth is the potentially unhealthy tooth was presented by Dr. Philip Jay of the school of dentistry, University of Michigan. Tooth decay is not a manifestation of malnutrition and cannot be controlled by fortifying the patient's diet with vitamins and minerals. Discussing the influence of sugar in the phenomena of tooth decay, Dr. Jay reported "It is seen that in practically all cases in which caries has been controlled by improving the nutritional inadequacy of the diet, the carbohydrate content has also been reduced." He pointed to the guilt of lactobacillus acidophilus in the process of tooth decay. Sugar encourages the growth of lactobacillus acidophilus, whereas a controlled amount of sugar in the diet reduces the bacteria count in the mouth.

"No matter how well the diets are supplemented with rich vitamin and mineral containing foods, if the carbohydrates are kept high, the lactobacillus counts are not reduced and caries is not controlled. On the other hand, should both the carbohydrate content of the diet and the mineral and vitamin containing foods be restricted, even though the diet is grossly inadequate, the lactobacillus counts drop and caries is substantially controlled."—*Excerpt from paper given at A.D.A. Convention,—N.Y. Jour. of D.*

• ADDRESS TO YOUTH

IT is wrong to say that there are not so many opportunities now for the College graduates. At no time was there such a demand for workers and leaders in every walk of life as there is today. At no other time were there so many battles to be fought on so many fronts and so many glorious victories to be won. They are real, not the imaginary enemies of dictators, lurking everywhere. Who are these enemies? The following editorial from the "New York Times" expresses it so well, that I hasten to repeat it in full in the hope that my son as well as all graduates will read it.

"Some of the young people coming out of college today are apt to complain that they have no cause in which to enlist, no crusade on which to embark. This is not true. There are causes aplenty in which youth may enlist and crusades awaiting volunteers. One of the most interesting comments we have seen in this respect is to be found in the address of a business man, delivered during the baccalaureate season at Olivet College in Michigan. The speaker was Harlow H. Curtice, president of the Buick Motor Corporation. And in his address to the youth of Olivet he said:

'I think you have the oldest cause in the world, and one of the noblest. Your battle is against the most insidious and tireless of foes. Let me name them. They are these: the easy way, the wishful thought, the tempting short cut, the shallow assumption, the clever expedient, the evasion of responsibility, the specious solution, the self-saving ingenuity, the surrender of independence and integrity of mind. You may not think these foes are formidable. Do not be misled. They are at the bottom of most of our troubles. They are betrayers of men and nations. They are at their zenith of power today and have half the world in thrall.'

This is an accurate and challenging statement, defining a cause and outlining an opportunity for the youth of the nation who are about to make the future."
—*Dental Items of Interest.*

When a man comes to me for advice, I find out the kind of advice he wants and then I give it to him. This satisfies him that he and I are two of the smartest men living.—Josh Billings.

Too True

"Thank you so much for making me well again, Doctor. I'll be indebted to you for life!"

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There is no such thing as fighting on the winning side: one fights to find out which is the winning side.—G. K. Chesterton.

Editor—M. H. GARVIN, Winnipeg

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Public Health Services in Canada

There is no subject of greater importance to every Canadian than that of health, and being a democratic country the Canadian people, collectively, have the power to determine what their governments shall do to prevent sickness and promote health.

The National Committee for Mental Hygiene (Canada) undertook the collection and publication of the information available with reference to medical, dental and public health services in Canada, and the facts were compiled and published a few months ago in book form.

According to the findings, 55,513 individuals including 10,031 physicians and surgeons and 4,039 dentists earn their living in providing public health and medical and dental services for the Canadian people. It is stated that on the basis advocated by the United States Committee on the Costs of Medical Care, the estimated number of physicians and surgeons required to meet the population needs of Canada (1931) would be 14,800 and the number of dentists, 10,362. Of the total 55,513 health personnel there were 8,605 physicians and surgeons in private practice as compared with 1,426 on salary; and 3,813 dentists in private practice as compared with 226 receiving

salary. For the year 1931 there was a ratio of one physician to 1,034 of the Canadian population and one dentist to 2,566.

It is stated that the securing of medical and dental care on a fee basis is related to the capacity of the individual or family to pay for the services. The Study finds that 25 per cent of Canadians live in families where the family income is less that $950 a year and with such a family income, payment of adequate professional fees cannot be met without depriving the members of other necessities of life; 65 per cent of the population live in families with an income of between $950 and $2,950 per annum.

The total cost of these services is approximately $193,000,000 or $19 per person which is a higher figure than the amount spent on education and just below that expended on clothing. Of this amount $90,000,000 goes to doctors, dentists, nurses, etc.; $50,000,000 represents hospital costs, less the salaries of the professional personnel; $50,000,000 is spent on drugs in retail stores, of which $12,000,000 is for physicians' prescriptions and $33,000,000 for patent medicines and compounds, the remainder being for drug sundries. Only $12,000,000 is expended on public health, including sanitation.

It was shown also that doctors, dentists and nurses are unevenly distributed throughout the country, location for practice being determined by ability to earn a living in a given area rather than by the health needs of that area.

At the present time medical care is secured by a number of our citizens through various organizations. The Dominion Government cares for war veterans who are pensioners; the Provinces maintain mental hospitals, and tuberculosis and venereal disease clinics. The Province of Ontario provides a fund to pay for the medical care of the unemployed in their own homes.

The following paragraphs are also found in this report:—

"The Associated Medical Services, Incorporated, is an organization, approved by the Ontario Medical Association, which offers a scheme for the payment of the costs of medical care on a non-profit prepayment basis. The subscriber pays $2 a month and additional sums for dependents, in return, receiving complete medical care and semi-private hospital accommodation.

"The most novel development in Canada for the provision of medical care is the Municipal Physician System as developed in Western Canada, particularly in the Province of Saskatchewan. Under this plan, a physician is engaged on salary to provide general practitioner care for the approximately two thousand people who live in the rural municipality or the towns and villages. The cost is met through a tax on land. The average cost per person in rural areas is $2.12. In 1938, the plan operated in 72 rural municipalities and in 43 towns and villages, reaching 17.4 per cent of the population of the Province. 'From a public health standpoint, a municipal physician makes an ideal health officer, because he finds it to his advantage

to use to the fullest extent those methods now available for the prevention of disease.'

"Group Hospitalization, or the purchase of hospital care, not including medical care, on a prepayment plan, is not new in Canada, but it has extended rapidly in recent years in all provinces.

"Since 1912, in England and Wales, there has been a national system of compulsory contributory health insurance. Over 19,000,000 workers contribute a small sum weekly to an insurance fund, in return for which they receive the services of a general practitioner for illness, and a cash benefit for inability to work on account of illness.

"Similar plans for Canada have been proposed. Two Provinces, British Columbia and Alberta, have enacted Health Insurance legislation, but in neither Province have the schemes been put into operation.

"If it is agreed that every Canadian should have the health protection which comes through properly organized public health departments and that every Canadian should receive the necessary medical care in the event of illness, then it is obvious that changes must be made in the present system which fails to meet these requirements.

"What is urgently required at the present time is the exploration of plans and the experimental application of well-conceived systems in order to reveal what meets best the varying needs of the different parts of Canada.'

As a profession we have long been concerned with the problem of adequate dental care for the large number of Canadian citizens in the lower income groups. We have frequently expressed our willingness to cooperate with any official group in dealing with this problem and have gone on record as approving of experimental application of well-conceived plans in order to find out the best way of meeting the dental needs in different parts of Canada. This Study on the Distribution of Medical Care is a challenge to the dental profession and to the dentists as individuals.

On the other hand it is undoubtedly correct to say that the ultimate result of the War will be a lowering of the standard of living of most of our Canadian people. Income taxes will have to be increased and applied also to a lower range of incomes than at present. Luxury expenditures will have to be curtailed and all this is well worth while, if, as a result, international justice and freedom are forthcoming. However, we, as dentists, are vitally interested as to what constitutes luxury expenditures. In the past dental service has been included as a luxury expenditure in the minds of a great many people. Innumerable items which could be classed as luxuries have been placed on the necessity list ahead of dental service, largely through ignorance. Undoubtedly one's health should be placed right at the head of the list when it comes to budgeting one's income, even ahead of the expenditure for fine literature and good music, and it is the duty of the dental profession to emphasize the importance of this matter.

Unfortunately, it is true of the past that too many dentists have assumed

the attitude of Scarlett O'Hara in "Gone with the Wind"—"I won't think of it now, I'll think of it tomorrow." The year 1940 is still in its infancy. The Canadian Dental Association does not meet until May. It is not too late to become enthused over this problem, to talk the question over in our society meetings and then instruct the delegates to the C.D.A. meeting to vote for increased support to our National Association, which is the only organization which can deal with these problems effectively. Let us promise ourselves that we will not rest until these difficulties are solved and tack up over the motto of one of the British Air Squadrons, "I spread my wings and keep my promise."

The dental profession is facing, today, a complex and difficult future. We require a great vision and a determination to reach our goal, remembering that a profession without a vision is like a derelict on the High Seas. It is a menace to those organizations which are striving to build up the health of the nation. "Let us reach the House of Success before nightfall."

BOOK REVIEWS

Year Book of Dentistry, 1939—Edited by Charles G. Darlington, M.D., Professor of Pathology, New York University College of Dentistry: George W. Wilson, D.D.S., Professor of Operative Dentistry, Marquette University Dental School, Milwaukee, Wisconsin: Howard C. Miller, D.D.S., Chicago, Illinois: Walter H. Wright, D.D.S., Ph.D., Associate Professor of Prosthesis, School of Dentistry, University of Pittsburg: George R. Moore, D.D.S., M.S., Professor and Head of the Department of Orthodontics, School of Dentistry, University of Michigan. Published by the Year Book Publishers, Chicago; 800 pages and 534 illustrations. Cloth, $3.00.

This book is a very interesting review of the best current dental literature of the world. It has been the aim of the editors to select those articles designed to meet the requirements of the average busy practitioner and in this they have succeeded.

This is really a book of abstracts covering all phases of dental practice and splendidly illustrated, with the result that one can secure the opinion of the world's leaders on any subject pertaining to dentistry with the minimum amount of reading. As a reference book to which one can turn in the face of any emergency or to obtain the latest valuable information upon a dental subject of special interest to the reader this book is invaluable. —*M. H. G.*

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Public Health Dentistry and Health Security—by Alfred J. Asgis, Sc.B., M.A., D.D.S., Ph.D., Assistant Professor of Oral Surgery, New York University, College of Dentistry; Instructor in Public Health Dentistry, New York University, Division of General Education. Published by the Clinical Press, 33 West 42nd Street, New York City. Price $3.50.

This book is written as a text-workbook for students and practitioners who are particularly interested in social dental education. Its purport is to give the student of the subject a general conception of the aims and activities of dentistry in public health work.

The need for training of a dental personnel for public health service is now being more generally recognized and this text is used in classes at the School of Education of New York University, where such a course of study is available. Teachers in dental colleges and all those who seek assistance in arranging programs in this field of endeavour should find this book very valuable. The references to the dental literature and the bibliography are most complete and helpful.

The Story of Dentistry—by M. D. K. Bremner, D.D.S., F.A.C.D. Published by the Dental Items of Interest Publishing Company, 2921 Atlantic Avenue, Brooklyn, New York. Cloth. 210 pages. Price, $3.75.

This fascinating book outlines the story of dentistry from the dawn of civilization to the present. More than five years of research and study went into the preparation of this volume which reads as a fast moving story. Here the reader will find the answer to questions frequently asked by patients about the early days of dental practice, as "Who invented the dental drill?" "How were teeth extracted before the discovery of anaesthetics?" "Was bridgework used in Ancient Egypt?" "Who discovered the X-ray?"

It is of particular interest to read about the effect on the profession of such developments as the discovery of amalgam as a filling material, of vulcanizing of rubber, of making crowns and bridges and the development of the inlay process.

The Story of Dentistry will not only prove to be very profitable reading but it will furnish many evenings' entertainment.—*M. H. G.*

Radio Manual — A compilation of Radio Broadcasts for Mouth Health Education. Hard Cover; 200 pages. Published by the Oral Hygiene Committee of Greater New York, 111 East 56th Street, New York City. Price $1.50.

This beautifully bound Radio Manual contains the transcript of forty talks given over Municipal Broadcasting Station W.N.Y.C. in New York City. These talks were prepared by some of the most outstanding dentists in the profession. The following subjects are covered: Children's Dentistry, Dental Infection, Diet, Medico-Dental Relations, Mouth Hygiene, Orthodontia, Periodontia, Preventive Dentistry, Prosthetics, Public Health and X-rays. This Manual should prove of great value to those who contemplate giving public addresses or who plan to prepare dental educational literature for lay use. It should prove valuable, also, for placing on the table of the dental reception room as educational material in the interests of good health.—*M. H. G.*

CORRESPONDENCE

EDITOR'S NOTE:—*The following is a part of a letter received from Mr. Bryan J. Wood, Editor of the British Dental Journal, outlining the status of the dental profession with Britain at War. This survey will be read by Canadian dentists with much interest.*

To the Editor, Journal of the C.D.A.:

The war organization of the dental profession was, as you know, pretty well completed before the outbreak of war, but the detailed adjustments that have had to be made to fit into this organization have occupied a lot of our time. The evacuation of London and some other of our larger towns has not only caused a very considerable amount of dislocation of private practice, but it has also thrown some of our public work—particularly the School Dental Service—into some degree of confusion, which is even now only just getting straightened out.

The Fighting Services are, of course, absorbing a considerable number of dentists as they are expanding to keep pace with the enlistments in the Navy, Army and Air Force, but the number of dentists who have volunteered for full-time service with the Forces is so great that we still have a waiting list of some six or seven hundred who are anxious to take commissions. In addition to the Dental Services of the Services, we have organized under the Ministry of Health a section of the Emergency Hospital Scheme to deal with maxillo-facial injuries. On the outbreak of war, three of these centres were at once manned ready for any emergency. So far, happily, they have had little or no work, but we had, of course, to be prepared for any emergency, as it was confidently expected that in addition to military casualties there might be thousands of casualties from enemy air raids. This Emergency Hospital Scheme is organized so that each maxillo-facial centre works in conjunction with plastic surgeons and each unit has a mobile team attached to it, which

is ready to go anywhere else in the country to help with casualties who are so badly wounded as to make it impossible to move them to the special jaw centres. Further, in each section of the country, arrangements have been made under which a skeleton scheme is available so that if and when it becomes necessary to set up other centres for the treatment of maxillo-facial injuries, the personnel is all ready to assume responsibility. With regard to the organization of private practice, the evacuation of the population has necessitated some re-allocation of dentists, as the volume of private practice has fallen badly in the large cities and has been increased to a corresponding extent in other parts of the country. For the purpose of assisting this necessary redistribution, we have set up at Hill Street a Private Practice Pool through which it is possible to allocate men who are surplus to requirements in one area to other areas where their services are required.

This organization is acting in a similar manner with respect to the School Dental Service. The School Dental Service is not organized centrally, but each local authority throughout the country conducts its own service and it has been held that authorities from whose schools children have been evacuated will surrender their responsibility for dental treatment to the receiving authority, who will take over that responsibility from them and later recover either from the Government or the evacuated authority the cost of providing this service. All this, as you can readily imagine, has called for a very great deal of detailed arrangement, and a strain on the resources of our staff. However, we hope that we are now through the worst of it.

I was very interested to read the account in the C.D.A. Journal of the organization of the Canadian Dental Corps and I have extracted part of this article to publish in the next issue of the British Dental Journal, as it will be of considerable interest to our members. We are very heartened here by the magnificent response to the call which has come from our colleagues overseas, and although we know that we have got a stiff time in front of us, we have none of us the least doubt as to the ultimate issue of this struggle that has been forced upon us.

November 30, 1939.

(Signed) BRYAN J. WOOD.

NEWS FROM THE PROVINCES

ONTARIO:

Ladies' Dental Auxiliary to London Dental Society

The Ladies' Auxiliary to the London Dental Society was organized on Monday at a meeting held at the Y.W.C.A., by a representative group of the wives of the members of the society. The following officers were elected: Honorary president, Mrs. S. M. Kennedy; president, Mrs. C. Windsor; vice-president, Mrs. John Hutchison; secretary-treasurer, Mrs. J. Frank Giffen; corresponding secretary, Mrs. J. O. McCutcheon; press secretary, Mrs. H. R. Sykes.

Since the outbreak of war, the Canadian Dental Corps has come into being as a separate unit and it was felt that many accessories and comforts for the dental clinics could be provided through some such organization as this.

Dr. S. A. Moore, president of the Canadian Dental Association, gave an outline of the work which the auxiliary might do. Captain Gordon Gauld, of the auxiliary services, asked co-operation with his department from the new auxiliary and Dr. F. F. Baker, president of the London Dental Society, assured the auxiliary members of the support of the Dental Society.

Tea was served after the meeting.

Toronto Dental Nurses' Alumnae Association hold benefit bridge for C.D.C.

More than 300 guests were entertained by the Toronto Dental Nurses' Alumnae at the I.O.D.E. home on February 2nd. Miss Marjorie Joyner, President, and Mrs. R. Christie, Social Convener, received the guests on their arrival.

Bags containing a variety of sample merchandise were prepared as favours and following cards refreshments were served. Several draws for lucky number prizes were held. These prizes were donated by the members of the Dental Trades Association and other friends.

The climax of the evening took place when President Miss Joyner presented Major Harvey Bean, District Dental Officer for M.D. No. 2, with a cheque representing the net proceeds of the evening. Major Bean thanked the Alumnae for their fine gift and intimated that such gifts were much appreciated by members of the Canadian Dental Corps.

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The exodontia practice of the late William J. Kerr, Toronto, has been sold to Dr. George A. Morgan. Dr. Morgan took over the practice on February 1st.

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Class 3TO—Reunion dinner at the Ontario Dental Association Convention, May 27th at the Royal York Hotel. Communicate with Dr. "Bill" Dewar, 86 Bloor St. W., Toronto.

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Annual Dance

The Academy of Dentistry annual dance was the usual social highlight of the Academy year. Dr. Lloyd Sterling and his committee lived up to precedents by providing a very high class party. It was held at Simpson's Arcadian Court on January 25th. Guests were received by Mrs. W. G. Trelford, Captain and Mrs. Hoffman, Dr. and Mrs. Sterling, Dr. and Mrs. Schumacher. Several members of the Academy entertained friends prior to and at the dance. The Hamilton Dental Society was represented by President and Mrs. C. T. Mason and Dr. and Mrs. Carl Moyle. Major Harvey Bean and Mrs. Bean were hosts to a number of Dental Corps members and their wives.

This annual function sponsored by the Academy is a much appreciated opportunity for the members to entertain their ladies and friends.

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Dental Nurses and Assistants

LONDON — The members of the London Chapter met in honour of Mrs. Ferna L. Cook, Ontario President, at dinner in the Surrey Coffee Shoppe, December 11, 1939.

Everyone enjoyed Mrs. Cook's visit immensely and her message was an inspiration to all. She was introduced by the President, Miss M. MacKay, who presided for a short business session following the dinner.

Miss Doris McKenzie was the convener of the meeting.

TORONTO—The first meeting of the New Year of the Toronto Chapter was held in the Royal York Hotel, January 8, with the President, Miss Madge Buik presiding. Sixty-one members answered the roll call; and a report of the family cared for at Christmas was given.

Plans were made for the Annual Dinner, to be held at Haddon Hall on February 8 at 6.30 p.m.; also a course in St. John's Ambulance work, which is to commence on January 15 for seven weekly lessons.

Following the business session Miss Irean Checkley gave a short paper on "Ifs, for Dental Assistants" which proved very interesting. Then Dr. Fisk was introduced by Miss Margaret Aikins and presented a splendid paper on "Orthodontia" which was illustrated by slides and moving pictures. Miss K. Simpson thanked Dr. Fisk.

QUEBEC:

McGill Undergraduates' Annual Dinner

On November 28 The McGill Undergraduate Society held its annual dinner at The Cercle Universitaire. At the head table were Lieut.-Col. F. M. Lott; Frank Giannasio, President of McGill dental undergraduates; Dr. E. Dubeau, Dean of the Faculty of Dentistry of the University of Montreal; Dr. A. L. Walsh, Acting Dean of the Faculty of Dentistry, McGill University; Lieut.-Col. J. W. Rooney, D.D.O. of M.D. No. 5.; Major F. W. Saunders, D.D.O. of M.D. No. 4.; Dr. W. G. McCabe, President of the Quebec College of Dental Surgeons; Dr. T. Assilint, Accessor of the Quebec Dental Board; Mr. T. H. Matthews, Registrar of McGill University;

Dr. Denis Forest, Secretary of the Province of Quebec Dental Board; Dr. T. Rieves; Dr. E. Charron; Messrs. Donald Henry, Jack Dohan, Mern Rogers, Jean Paul Lemieux, Eugene Hickey and Gilmore Haven.

The meeting had an unusual touch of colour with some twenty members of the Canadian Dental Corps of District No. 4 being present in their new uniforms. Mr. Jack Dohan was called upon to present a toast to Our Alma Mater. Mr. T. H. Matthews, the Registrar of McGill University, replied. Mr. Matthews referred to the progress the University had made in the last 80 years. As an illustration of the condition of the University in the middle of the 19th Century he quoted the following from the Autobiography of Sir William Dawson, who was Principal of the University from 1855 to 1893: "I first saw McGill University in October 1855. Materially, it was represented by two blocks of unfinished and partly ruinous buildings, standing amid a wilderness of excavators' and masons' rubbish, overgrown with weeds and bushes. The grounds were unfenced, and pastured at will by herds of cattle, which not only cropped the grass, but browsed on the shrubs, leaving unhurt only one great elm, which still stands as the 'founder's tree,' and a few old oaks and butternut trees, most of which have had to give place to our new buildings. The only access from the town was by a circuitous and ungraded cart track, almost impassable at night. The buildings had been abandoned by the new board, and the classes of the Faculty of Arts were held in the upper story of a brick building in the town, the lower part of which was occupied by the High School. I had been promised a residence, and this, I found, was to be a portion of one of the detached buildings aforesaid, the present east wing. It had been very imperfectly finished, was destitute of nearly every requisite of civilized life, and in front of it was a bank of rubbish and loose stones, with a swamp below, while the interior was in an indescribable state of dust and disrepair. Still, we felt that the governors had done the best they could in the circumstances, and we took possession as early as possible. . ."

"The University at this time comprised three faculties—those of law, medicine, and arts. The faculty of law, then recently organized, had two professors and two lecturers. The faculty of medicine, the oldest and most prosperous of the three, had ten professors and a demonstrator. The faculty of arts had four professors and a lecturer, and all of these, except one, gave only a part of their time to college work. They were, however, able and efficient men.

"Our great difficulty was lack of the sinews of war, and the seat of Government being, at the time, in Toronto, I was asked by the governors to spend my first Christmas vacation in that city, with a view to securing some legislative aid. There was as yet no direct railway communication between Montreal and Toronto, and of course, no Victoria Bridge. I crossed the river in a canoe, amidst floating ice, and had to travel by way of Albany, Niagara, and Hamilton. The weather was stormy, and the roads blocked with snow, so that the journey to Toronto occupied five days, giving me a shorter time there than I had anticipated."

The speaker of the evening was Colonel F. M. Lott who was introduced by Major F. W. Saunders who said in part:—

"I have the honour and privilege of introducing the Director of Dental Services for the Navy, the Army and the Air Force.

"If I use a flattering introduction I may be accused of attempting to feather my own nest, yet I must tell you something about this man. As Mark Anthony would say, 'We came here to listen to Col. Lott not to bury him.' Usually flattering remarks about an individual are reserved for his funeral.

"Col. Lott is first of all a gentleman, then he is a soldier, a student and a teacher. A soldier because he served with distinction as a combatant officer in the last great war; a student because he has spent most of his life in research—that is why he is in his present position, because he made an exhaustive study of dental services for the Army, and when the call came he was the only man in Canada capable of filling the position. He would much rather be in the thick of the fighting. A teacher because he was, until the outbreak of this war, Professor of Prosthetic Dentistry at the University of Toronto.

"On September 2, last, he was asked to take on a super-human task, and so far he has carried it out in a super-human manner, and if he is allowed to carry out his ideas, Canada

will have the World's greatest Dental Corps."

Outline of Col. Lott's Address

Col. Lott gave a brief outline of the history of army dental service, and illustrated it with frequent references to statistics from experience in previous wars.

The army surgeon who, till quite recently, with a kit of crudely designed instruments, pelicans, punches and cauteries, had to bear the brunt of the army's dentistry since 1586, was the object of sympathy and commendation.

Army dentistry is still quite young. The statement that during the South African War over 20,000 British soldiers were invalided home on account of dental disabilities or disorders attributable to them, speaks volumes for its need. However, in the face of this, Canada entered the war in 1914 with no dental corps whatever. Examinations and emergency treatments were provided and available only through the interested civilian practitioners, but in spite of their best efforts, many of the soldiers proceeded overseas lacking necessary dental care.

May 1915, when the rejections on the grounds of dentally unfit reached disturbing proportions, the need for a dental corps was admitted. Authority was given for the formation of the Canadian Army Dental Corps, and by July 15, a draft of 30 officers and accompanying other ranks were at work in England. The corps grew until it reached a total, all told, of 1339 officers and other ranks. With this personnel, it was possible to do a fine job for the men in Canada and England, but the rigid adherence in France to the established organization, of a dentist to a medical unit, made the extension of their activities to the men in the field impossible.

This situation has been a source of some concern to the dental profession ever since, and from time to time, efforts have been made to introduce a plan for an army dental organization that would prevent a recurrence of such needless hardships and pitiful experiences.

Finally, the Canadian Dental Association reached a decision on the matter, and formed a committee to solve the problem. Colonel Lott, a member of this committee, undertook to carry out an extensive survey of the available sources of information on the subject, and subsequently, to report his findings. After two years' study and research, his report was prepared, and submitted to the Minister of National Defence in November, 1938, and in due course accepted as the basis for the new Canadian Dental Corps.

In conclusion, Colonel Lott described his hopes for the future of the Corps, as well as its present achievements, and asked for the co-operation and support of the dental profession.

After the close of the meeting, the members were permitted to inspect a complete dental field kit, which had been brought down and laid out in a manner similar to that in which one might expect to find it when in the field. —*Earl M. Laurin, Montreal.*

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Major Saunders Honoured

Major F. W. Saunders, D.D.O. of M.D. No. 4, has been made an honorary member of the Dental Society of Montreal. He was presented with a parchment bearing the signatures of Dr. Gerard Baillargeon, Secretary, and Dr. Lucien P. Reeves, President of the Society.

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Associate Editor

The Provincial Board of Dental Surgeons of the Province of Quebec has appointed Doctor E. M. Laurin as Associate Editor of the Journal of the C.D.A. to succeed Major F. W. Saunders, who has been appointed to take charge of the C.A.D.C. for M.D. No. 4.

NOVA SCOTIA:

Canadian Dental Corps

The C.A.D.C. in Halifax seems to be slowly getting under way. They had a lot of Overseas men thrust on them, just as they were starting and that complicated matters quite a bit. Now they are gradually getting a number of clinics under way. Our problem here is probably quite unique from that of any other place. We are very much a military and naval city now, as you would expect. The result of all this, so far as the C.A.D.C. is concerned, is that it has not been possible to concentrate treatment in any one place, but the plan will be to have a centre for the Navy, one for the Air Force and several for the Army; probably one centre here in town and another out in one of the forts, where it

would be central for a group of the men. Things are scattered around so much that it would mean a lot of lost time bringing the men into one centre. We had a scheme worked out to use part of the college, but it is not likely that it will be carried out, as outlined above. — *Condensed from letter received by the editor from Dr. J. Stanley Bagnall, of Halifax.*

BRITISH COLUMBIA:

Vancouver Dental Society

The Vancouver Dental Society put on a "Stunts" evening at its regular monthly meeting. Practically all the members took part. Each practitioner has an efficient way of handling some step in operating and so the "Stunt" was described. Practically every field of dentistry was covered as follows:—amalgam condensation by means of spunk and rubber erasors, the type that are used in eversharp pencils and the polishing by rubberdam in the interproximal spaces: the removal of inlay patterns by paper staples to prevent distortion, both prongs of the staple being inserted in the wax and a direct pull being obtained, the staple being removed from the wax by means of a hot pair of pliers: treatment of Vincent's and dry sockets: the control of haemorrhage: the construction in temporary partial restorations of stainless steel wire for clasps and bar and the use of Shim metal as matrix material, these being procured at hardware stores at less per yard than inches at the depots: the grinding of Steeles facings for porcelain faces in the construction of cast crowns.

The need for the education of the public in respect to dental health was fully discussed and a plan has been formulated to carry it out in British Columbia. The society unanimously passed the following resolution:—"Resolved that the Vancouver Dental Society recommend to the Council of the College of Dental Surgeons of British Columbia to amend section 56 of the Dentistry Act, to provide for maximum fee of $25.00 instead of $10.00 in order to provide, with this added revenue, a fund to be used to defray the cost of publicity in respect to dental health."

C.A.D.C.

The following men have received their commissions in the Canadian Army Dental Corps: Captain Harry A. Simmons, 1st, Division; Lt. Frank Smith, No. 11 Division of C.D.C.; Lt. S. R. Mitchell and Lt. H. E. Simmins, No. 11 Division of C.D.C.

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School Board Appointment

On December 29 the City School Board of Victoria appointed Dr. Hugh Clarke as full-time school dentist. Dr. Clarke commenced his duties early in the New Year. Salary for the position was placed at $2,500 for the 10-month term. Formerly dental work was handled under a part-time arrangement between two dentists.—*B. C. Times.*

ALBERTA:

Calgary Dental Society

Major Harold Wright, O. C. of the 91st Battery, Military District No. 13, gave a most interesting address on Mines and Mine Sweeping at the December meeting of the Calgary Dental Society.

Major Wright had a long and exciting experience in the mine sweeping branch of the British Naval forces in the last war, and also took part in the spectacular raid on Zeebrugge.

At a meeting of the above Society on January 8 Dr. Harry Gilchrist, Professor of Prosthetic Dentistry, at the University of Alberta, gave a very interesting paper and clinic on his experience with and modifications of, the Fournet-Tuller technique.

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Edmonton Dental Society

At the December meeting of the Edmonton Dental Society held at the Macdonald Hotel, Dr. Rowan, Professor of Zoology at the University of Alberta, was the guest speaker.

Dr. Rowan, whose researches on the migration of birds have attracted world-wide attention and recognition, surprised the members by a very interesting talk on his impressions of Europe.

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The January meeting of the above Society was held on January 9. There was presented at this meeting a film on "Immediate Denture Service" produced at the University of Minnesota under the direction of Dr. Flagstad,

Professor of Prosthetics. This film was very instructive and the coloured photography excellent. It was viewed by nearly fifty members besides several out-of-town guests and the entire fourth and fifth year class of the Department of Dentistry of the University of Alberta.

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University Appointments

Dr. H. B. Ness, of Camrose, and Dr. John W. Clay, of Calgary, have been appointed Honorary Lecturers in the Dental Department of the University of Alberta. Dr. Ness is attached to the Department of Crown and Bridge work, and Dr. Clay to the Department of Exodontia.

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Refresher Course

Don't forget the refresher course to be given by the Dental Department of the University of Alberta, on February 26-28. The subjects will include Prosthetic Dentistry, Exodontia and Surgery, Anaesthesia, Periodontia, Fillings and Filling Materials.

Every effort is being made to give excellent instruction and to make this course valuable to every dentist who attends.

SASKATCHEWAN:

Moose Jaw Dental Society

The last meeting for the year of the Moose Jaw Dental Society was held on December 14 with the President, Dr. A. Duff Leask, in the chair. Dr. F. C. Harwood gave a clinic on "Synthetic Porcelain," giving his technique of cavity preparation for synthetic restorations, and the mixing, inserting, maintaining contour and pressure during the initial setting of the material, and the finishing of the restorations.

The January meeting of the same Society was held on January 11, with the President again in the chair. At the business meeting it was decided to invite the members of the Regina Dental Society to be our guests at a meeting during February or March, to be arranged later. A pleasing feature of this meeting was a presentation made to the President, Dr. A. Duff Leask, on the occasion of his approaching marriage. Alderman Dr. A. E. Chegwin, in a very happy vein, made the presentation address and Dr. L. F. Hare made the presentation on behalf of the members of the Society.

MANITOBA:

Manitoba Dental Association

The regular January election of three members to the Board of Directors of the Manitoba Dental Association resulted in the re-election by acclamation of Drs. A. E. Proctor and C. D. McLeod, of Winnipeg, and the election of Dr. A. R. Hurst, of Brandon. Dr. Hurst is a new member of the Board, rep'acing Dr. N. S. Bailey, of Portage la Prairie, who voluntarily retired after ten years of valuable and conscientious service. During his term Dr. Bailey occupied the office of president for two years. However, Dr. Bailey was prevailed upon to serve for another year in order to fill in for the balance of Dr. C. L. Strachan's term, Dr. Strachan having resigned to proceed overseas for military duty. Dr. Bailey is also in the Dental Corps, but may not leave for some time.

The officers of the Board of Directors for 1940 are:—President, Dr. A. E. Proctor; Vice-president, Dr. C. D. McLeod; Registrar and Secretary-treasurer, Dr. J. F. Morrison. Dr. M. H. Garvin was reappointed delegate to the Canadian Dental Association.

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Winnipeg Dental Society

The first 1940 meeting of the Winnipeg Dental Society was well attended to hear Mr. W. P. Fillmore, K.C., of Winnipeg, who had been invited to tell the members how to avoid suits for malpractice, and if faced with one how to avoid a verdict of "Guilty." Mr. Fillmore's well-known ability to wrap his words of wisdom in his own brand of humour made his address quite entertaining as well as informative. Dr. C. O. Wood, the President of the Society, presided.

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A Ladies' Auxiliary of C.A.D.C.

A Ladies' Auxiliary of the Canadian Army Dental Corps has been organized in Winnipeg in order to secure and supply certain articles and comforts, not included in the regular military establishment, for the members of the

Canadian Dental Corps of Military District No. 10 serving at home and overseas. The following officers were elected: President, Mrs. W. W. Wright, wife of Lt.-Col. W. W. Wright; Secretary, Mrs. C. S. McLeod; Treasurer, Mrs. J. Currie. Mrs. Reeve Morrison and Mrs. G. A. Buchanan were placed in charge of the sewing and ways and means committees.

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Dental Nurses and Assistants

The January meeting of the Winnipeg Dental Nurses' and Assistants' Association, held at the St. Regis Hotel, took the form of a business and social evening.

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Death From Nitrous Oxide

The members of the dental profession in Manitoba received a severe shock a few weeks ago when they learned that one of our profession had a fatality occur in his office while administering nitrous oxide. Though nitrous oxide is used so widely, the hazards of a general anaesthetic are ever present and we are fortunate that accidents of this nature are so rare.

EMPIRE NEWS

GREAT BRITAIN:

Scientific Editor

Mr. Martin A. Rushton has been appointed Scientific Editor of the British Dental Journal in succession to the late Mr. A. T. Pitts. Mr. Rushton, who is a member of the staff of Guy's and St. Thomas's Hospitals, has been a frequent contributor to the Journal.

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Students' Register

An accurate but incomplete register of medical and dental students who have been admitted to the schools during the last academical year has lately been issued by the authority of the General Medical Council.

The number of women who have entered the study of medicine during the past year is 284, or just over 16 per cent of the total entry. Medicine attracts a larger proportion of women than does dentistry, for of the 316 dental students only 32 are women, or 10 per cent. The year of birth of the great majority of students, medical and dental, is 1919 or 1920. A few—140 medical students—were born in 1921. — *Dental Record, December,* 1939.

NEW ZEALAND:

Nutrition in New Zealand

New Zealand has the reputation of being a country that produces a healthy and virile people. Recent inquiries have tended to throw some doubt on this generalization. The "protective foods" are still fairly expensive and as a consequence New Zealanders tend to consume meat as their main first class protein and to bulk their diet with white bread, cakes, cane sugar and tea. New Zealanders are the largest meat eaters in the world (about 250 pounds a head annually). This statement is amply borne out by a survey of food consumption for the last few years. Total food consumption divided by total population shows that each person consumes daily from 6 to 7 ounces of sugar, approximately 1 pound of red meat, a half pound of white flour, two-thirds of a pint of milk, two-thirds of an egg, one-third ounce of cheese and from 2 to 3 ounces of butter (not margarine). Most of the milk is taken by adults in tea and the egg in cakes.

The available evidence suggests that about 97 per cent of the school children show signs of dental caries and that more than 50 per cent of the adults have false teeth. It is also reported that one in every twenty persons in the country is in the hospital every year, chiefly for such complaints as appendicitis, tonsils and goitre. The adult population also suffers to no inconsiderable degree from digestive complaints, rheumatism and neuritis.

It is interesting to note at what age the breakdown in the health of the children begins to occur. Up to the age of 8 or 10 months most of the children seem to be in good condition. After that age it is customary to cut down the amount of milk, cod liver oil, and orange juice, with the result that the

calories are obtained mainly from refined starches and the resistance of the child tends to decrease. By the time the children are going to school, dental decay has become common. But for the past two years an additional half pint of milk has been supplied daily in the schools, and this is having a beneficial effect.

Another factor which has an influence on the nutrition of New Zealand is the quantity of cakes and pastry that are consumed. No morning, afternoon or evening gathering is complete without an array of these delicacies, and with the great majority of the population (largely female) they constitute the mainstay of the day. The tea drinking habits are the surprise of every visitor; strong tea, often plentifully sugared, accompanies every meal, even dinner.—*American Medical Association Journal: 12/2/39; per A.D.A. Release.*

GENERAL NEWS

C.D.A. President Undergoes Operation

It is with sincerest regret that we announce that Dr. Stephen A. Moore, President of the Canadian Dental Association, had to undergo an emergency operation for appendicitis on January 11. Latest reports indicate that he is home and progressing favourably.

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Mickey Mouse, Dentist

One of the chief planks in American dentistry's platform to reduce tooth decay is "Get 'Em Young." But the young are not fond of trips to the drill-and-pull chair, so the dentists have devised various cajoleries to lull their fears—among them the practice of flashing movie cartoons on the ceiling so a youngster may take a laugh at Pluto and Pup along with an amalgam filling.

Last week the Journal of the American Dental Association, in its December issue, brought out something new in this direction: a list of posters, playlets and other material for use in dental offices and schools. Especially featured were three items enlivened by coloured pictures of Mickey Mouse and other Walt Disney characters, a "good teeth" button for children whose teeth have been put in A-1 condition and a card telling youngsters to "phone or write for an appointment." Also made available to dentists were rubber molds for turning out plaster casts of Snow White and the Seven Dwarfs, to be presented to children as rewards when they leave the office. And for the future Dr. Lon W. Morrey, public-relations director of the A.D.A., is planning a series of come-to-the-dentist posters featuring Pinocchio.—*Newsweek: 12/18/39; per A.D.A. Release.*

Jury Digs Into Roots of Open and Shut Case

Several days ago there were whisperings in the United States courthouse that witnesses before the federal grand jury were behaving strangely. Veteran court attaches shook their heads. They couldn't remember when the old building had seen anything like it.

One witness, as the story got out, was asked to whistle. He puckered up his lips. The startled jurors saw the upper plate of his false teeth fly across the room.

And that wasn't all. Other witnesses were required to draw back their lips from time to time and show their molars to the jury. At the direction of government prosecutors, it was reported, they moved their jaws rapidly or recited such tongue twisters as:

"Shimmering shells on the sea shore . . . "

It seemed to be an odd business—until yesterday.

Then the grand jury returned indictments charging John Alger and his wife, Josephine, operators of a dental laboratory at 1562 North Wells Street, with violating the postal laws in conducting the sale of mail order false teeth.

The Algers did a thriving business in the rural areas, it was charged by A. Bradley Eben, assistant United States attorney, with the aid of a $1,000 a month campaign in which they promised:

"You can laugh with Alger teeth. You can eat corn on the cob. Alger teeth do not ache."

Prospective customers received a rubbery compound which they had to heat before sinking their gums into it, the indictment explains.

They sent impressions to the laboratory and by mail received their new grinders. The jury found that in most cases the teeth fitted poorly and failed to give satisfaction.

In 1936, the year after the Algers went into business, they had receipts of $33,816.99, the jurors found. They paid out $12,000 of this for magazine advertisements. Federal Judge William H. Holly set bond for husband and wife at $2,500 each.—*Chicago Tribune: 12/15/39; per A.D.A. Release.*

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The Dues of the American Dental Association

by ARTHUR H. MERRITT, New York, N.Y.

(Excerpts from President Merritt's message to the American Dental Association, February, 1940.)

As a rule the dues paid to the local dental society include membership in the state and national organizations. These dues vary in amount in the different states. Out of these dues (whatever they may be) $4.00 goes to the American Dental Association. Of this, $2.50 pays for subscription to the Journal which is sent monthly to each member. Total income from all sources for the current year is estimated at about $322,000. The membership at present is approximately 46,000.

The American Dental Association is the only organization representing the dental profession in the U.S.A. It alone is the official spokesman of American dentistry. This involves many responsibilities which could not be undertaken by the individual members of the profession or by the smaller dental societies of the country.

This year, the requests for funds needed to carry on the increasing responsibilities of the Association exceeded income by more than $50,000. This is why the House of Delegates will be asked to vote an increase of $2.00 in dues at the meeting in Cleveland next September.

When the dues which we pay are compared with those paid by the medical profession, they will be found to be almost negligible. In one State of which I have knowledge, the physician pays for the same privileges enjoyed by the dentist in his local, state and national organization, $41.00 per annum—more than twice as much as that paid by most of us. This is not an exceptional case. In some states I am informed by the president of the American Medical Association they are considerably higher.

Unless the dues of the American Dental Association are brought into line with present day needs, it cannot go forward with the activities which clearly belong to it and which cannot be carried on by any other dental organization.

If we are not "penny wise and pound foolish" we will instruct our delegates in 1940 to vote for this much needed increase in dues. It must be done if American dentistry is to maintain its leadership.

EDITOR'S NOTE:—*The above statements should cause Canadian dentists to pause and reflect as to their duty towards their own National Association. If the American Dental Association with* 46,000 *members requires* $6.00 *per member in order to meet its obligations to the profession, our Canadian Association requires several times that amount. At present our financial support to the Canadian Dental Association is a mere pittance as compared with what it should be.*

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Congratulations

Congratulations to Major Harvey G. Bean, District Dental Officer for M.D. No. 2, who was granted his Majority in January.

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Complimentary Dinner

A complimentary dinner is being tendered for Col. F. M. Lott, Director of Dental Services for Canada by the Dental Faculty, University of Toronto, on February 17th at the Royal York Hotel, Toronto.

An open invitation is extended to all his friends and those desiring to attend should contact Dean Mason, Chairman of the committee for arrangements.

A special invitation is extended to a number of military dignitaries from headquarters staff at Ottawa.

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Still a Jump Ahead

An eastern bank just announced a plan whereby the long-suffering medical and dental professions are enabled to receive real cash for their services, by the bank financing the patients. It seems that the Commercial National Bank of Hillsboro, Oregon, has been extending an identical service to clients for more than a year and a half. William C. Christensen, president of the bank, explained

that the plan was inaugurated not alone to make profit for the bank, but to assist the medical and dental profession and the public as well.

Briefly, the plan is this: A patient's note, on a monthly payment basis, may be discounted at the bank with the physician's endorsement; or, the bank will take the patients' notes for collection; or, again, the bank will work out a personal loan plan for patients sent to it by the doctor or dentist, without endorsement of any kind. In the experience of the bank the plan has been successful, according to Mr. Christensen.—*North Pacific Banker, August,* 1939; *A.D.A. Release.*

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A Member of the C.A.D.C. in the Great War

In 1915 when the Canadian Army Dental Corps was formed Dr. J. J. Teetzel, of Barbados, B.W.I., cabled Ottawa offering his services and immediately sailed for Canada. On account of his age he was not permitted to go overseas but served in the Canadian Corps until the end of 1919 when he returned to Barbados. Captain Teetzel has been in active practice for over 57 years and in a letter to Col. W. G. Trelford describes the delightful climate of the Barbados and the influx of tourists for the winter months.

J. J. Teetzel in 1918

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Compensation Fee Schedule in West Virginia, U.S.A.

If a patient is eligible for compensation as covered by the law, dental services will be paid for by the Commission on the basis of a fee schedule as follows:—

Gold fillings	$ 6.00
Porcelain fillings	$ 3.00
Simple Amalgam fillings	$ 2.00
Simple Amalgam fillings (with intermediate)	$ 3.00
Compound Amalgam fillings	$ 3.00
Gold Crowns (anterior)	$ 8.00
Gold Crowns (bicuspid)	$ 9.00
Gold Crowns (molars)	$10.00
Porcelain Crowns (treatment extra)	$10.00
Richmond Crowns (treatment extra)	$15.00
Open-faced Crowns	$ 8.00
Three-quarter cast Crowns	$15.00
Full cast crowns	$20.00
Porcelain Veneer Crowns	$20.00
Gold Crowns (on plates)	$ 8.00
Bridge Work (per tooth, anterior)	$ 9.00
Bridge Work (bicuspids)	$ 9.00
Bridge Work (molars per tooth)	$10.00
Plates (single, teeth already extracted)	$30.00
Plates (full upper and lower, teeth already extracted)	$50.00
Removing nerve and filling canals in Molars	$ 5.00
Removing nerve and filling canals in Anterior and Bicuspid	$ 5.00
Treating putrescent teeth	$ 5.00
Extracting (single tooth with anaesthetic)	$ 2.00
Extracting (each additional tooth at same sitting)	$ 1.00
Inlays	$ 8.00
Lingual barplate with two clasps	$40.00
Partial upper plates with two clasps	$35.00
X-ray (single)	$ 3.00
Each additional x-ray at same sitting	$ 2.00
X-ray full mouth	$15.00
Brushing teeth	$ 2.00
Prophylaxis (four sittings)	$10.00
Local anaesthetic other than with extractions	$ 2.00
Relieving pain (toothache, opening abscess, trim plate, etc.)	$ 2.00

— *West Virginia Dental Journal, January,* 1940.

The Puppet Show

Teachers, dentists, parents and children who have seen the visual educational project, the Puppet Show on Oral Health education, are expressing high praise of its educational value. During the first two weeks of its schedule in Eastern Oregon, 29 shows were presented in elementary schools and a total of 8,590 children and 287 teachers attended. A great many letters of praise have been received in this office from teachers and dentists as to the effectiveness of this method of teaching Oral Health, and hundreds of children have written interesting letters. These letters indicate that very definite impressions have been created in their minds as to the importance of right foods, good mouth hygiene and frequent visits to their family dentist. This show continues its schedule through November. — *Journal of the Oregon State Dental Association: October, 1939.—A.D.A. Release.*

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."

John Archibald Beatty, Stratford, Ontario, died January 25th, at Christie St. Hospital, Toronto, after 14 weeks' illness.

Dr. Beatty graduated in 1906 and began practice in Stratford where he has continued until his illness, except for the period he served in the Dental Corps during the Great War. He served with the rank of Captain in the C.A.D.C.

Dr. Beatty was prominent in fraternal and church circles, serving as a member of Board of Session in Knox Presbyterian Church. He was a member of Stratford Rotary, Tecumseh Lodge A.F. & A.M. and Eastern Star I.O.O.F.

He is survived by his wife, his daughter, Dr. Ferne Beatty, and a son, John Arthur.

Interment was in Avondale mausoleum.

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Kenneth H. McKay, St. Thomas, Ontario, died on January 23rd, age 35 years, at the home of his parents, Rev. D. and Mrs. McKay, London.

Dr. McKay graduated from the Dental Faculty, University of Toronto in 1927. He was highly esteemed among his colleagues of Western Ontario and had many friends among his fellow citizens. He was a member of the School Dental Staff of St. Thomas, St. Thomas Dental Society, Lion's Club and St. Thomas Golf and Country Club.

As a golfer "Ken" played a good game and won many trophies. It was always a delight to play with him.

He was an active member of Knox Presbyterian Church, St. Thomas, being a member of its Board of Managers.

The many floral tributes placed about his casket indicated the great loss to the community he served. Some of the organizations represented were: St. Thomas Boards of Health and Education, Dental Societies of London and St. Thomas, congregation of St. George's Church and Elmwood Ave. Church, London, Dorchester Presbyterian Church and Knox Presbyterian Church, Lion's Club, Officers' Mess, Elgin Regiment, Class 2T7, Public School Teachers' Council and others.

Interment was in Elmdale cemetery.

●

J. Armand Marcoux, of Montreal, Quebec, aged 46, died suddenly at Miami, Florida, on January 16. He was vacationing at this southern resort with his wife, when fatally stricken.

He was graduated from the University of Montreal in 1917.

. . . SECTION FRANÇAISE . . .

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Oxyde de Zinc et Ciment d'Oxyde de Zinc

par ALCIDE THIBAUDEAU, D.D.S.

Il y a plusieurs années que le zinc est employé en médecine sous forme d'acétate, de bromure, de chlorure et de 10 autres encore. On en a fait des pommades, des pilules, des emplâtres, des solutions injectables, etc. C'est-à-dire que l'on a reconnu aux préparations de zinc une activité et des propriétés thérapeutiques fort remarquables.

En chirurgie dentaire les applications en sont limitées, mais d'usage quotidien. Je ne parlerai aujourd'hui que de l'oxyde. On sait qu'il y a deux procédés de préparation de ce produit. Celui de l'oxydation du métal pour combustion et qui donne une poudre blanche, et celui du chauffage des carbonates qui nous donne une poudre plutôt jaune.

En effet qui ne connaît pas aujourd'hui la pâte d'oxyde de zinc que l'on emploie pour sceller temporairement les cavités. Les avantages nombreux de cette préparation en font un ciment temporaire des plus recommandables, et il ne serait peut-être pas inutile d'en faire un bref résumé.

1o Il est d'une manipulation très facile.

Il y a tout de même certaines précautions essentielles qu'il ne faut pas oublier. Cette pâte se prépare avec l'eugénol. Cette dernière substance s'altère avec le temps et à la lumière. Je n'ai pas la prétention de pouvoir expliquer les changements qui s'y produisent, mais que je crois savoir que les eugénols qui nous sont fournis ne sont généralement pas déterpénés, c'est-à-dire qu'ils contiennent encore de la

térébenthine et pour cette raison changeraient de couleur et deviendraient en vieillissant plus ou moins toxiques et impropres à une bonne combinaison avec l'oxyde de zinc. Il faudra donc avoir soin de toujours acheter l'eugénol en petites quantités et de le conserver autant que possible à l'abri de la lumière.

En outre pour faire une pâte bien préparée, il est préférable d'employer un verre dépoli, car le malaxage des deux substances doit se faire à fond ce qui est très difficile sur une plaquette ordinaire.

2o Dans les cavités un peu profondes, c'est un véritable sédatif. D'abord à cause de l'eugénol qu'il contient et dont on connaît déjà l'effet bienfaisant et aussi à cause de son hydrophilie. Il décongestionne la couche granuleuse de Tomes et ses canalicules irrités par la carie et diminue ainsi passablement la sensibilité pour une intervention subséquente. Si au cours d'une première phase du traitement d'une carie profonde, on décide de laisser une couche de dentine ramollie, à la séance suivante, après avoir enlevé l'obturation temporaire à l'oxyde de zinc, on notera que la dentine molle et humide du fond de la cavité est presqu'entièrement desséchée et que son ablation est beaucoup facile.

3o Il semblerait même que préparé comme ciment temporaire, c'est-à-dire en pâte plutôt légère, il lui resterait encore une certaine porosité capable d'empêcher les liquides de la bouche de le pénétrer trop vite; et en même temps capable de laisser échapper certains gaz qui pourraient être nuisibles.

4o A mon sens c'est comme ciment permanent que l'oxyde de zinc peut rendre les plus grands services. Mais à la condition qu'on y ajoute du thymol.

Disons tout de suite pourquoi cette addition. C'est d'abord pour que notre ciment soit vraiment permanent et antiseptique. Le thymol est un phénol qui n'est soluble que dans l'alcool et certaines huiles essentielles; il ne pourra donc être dissout par aucune production de notre organisme. Par contre il se fondra parfaitement dans l'eugénol dont on fera du ciment avec l'oxyde de zinc. L'eugénol disparaîtra complètement du mélange s'il le peut, mais le thymol y restera en permanence. Qualité précieuse pour un ciment de fond de cavité.

J'ai bien dit ciment de fond, car si je l'appelle permanent, ce n'est pas avec l'intention de le recommander comme une substance d'obturation qu'on peut employer seule. Il est donc entendu qu'il faudra un jour ou l'autre le recouvrir d'un revêtement plus durable tel que l'amalgame ou l'or. J'ai pourtant porté moi-même une de ces obturations pendant 8 ans et elle était encore en parfait état quand il me vint à l'idée d'en enlever une partie pour la remplacer par du Kryptex. J'en ai même trouvé une autre de 9 ans sur une deuxième molaire inférieure d'une de mes patientes. Elle était si bien conservée que sans une petite ligne blanche tracée par mon explorateur, elle serait passée inaperçue. Cette obturation comprenait la face triturante de la dent et je me servis d'un cône renversé pour en enlever une partie et la remplacer par de l'amalgame. C'est alors que la patiente reconnut que cette obturation avait conservé toute sa saveur de thymol des premiers jours.

Quand ce ciment est-il recommandable?

En vérité je l'emploie dans presque toutes les cavités où il n'est pas prudent d'appliquer directement l'amalgame sur la dentine. Il a cet avantage de ne pas présenter les inconvénients des oxyphosphates. Il ne contient pas d'acide. Il est en outre assez résistant pour bien supporter n'importe quel genre d'obturation simple ou composée, à condition cependant qu'on ne veuille pas s'en servir comme moyen de rétention.

Voici comment je procède généralement. Je prépare ma cavité selon les règles de l'art et surtout selon les besoins de chaque cas. Ensuite je procède à la préparation de mon ciment. Cela doit se faire comme dans le cas du ciment temporaire sur un verre dépoli. Cette fois-ci c'est de nécessité absolue. J'y dépose 5 ou 6 gouttes

d'eugénol frais dans lequel je jette gros comme une lentille de thymol. Une spatule flexible ne donnera que pauvre résultat. Il faut donc une forte spatule à bout rectangulaire. Deux ou trois coups de spatule suffiront à fondre tout le thymol dans l'eugénol. C'est alors le temps d'y incorporer l'oxyde de zinc. Cette fois il ne faudra pas se contenter d'une pâte légère. Il faudra faire absorber au liquide toute la poudre possible et le malaxage ne sera jamais trop bien fait. On s'étonnera probablement de l'énorme quantité de poudre qu'il faudra pour saturer une si petite quantité de liquide. C'est dire qu'il faut préparer un ciment aussi dur que possible. Dans les pays froids il serait bon de réchauffer la plaquette de verre, et inutile d'ajouter qu'il faut qu'elle soit bien sèche.

Quand je suis rendu au point où il ne semble plus possible d'incorporer de poudre à la pâte, alors j'exclus l'humidité de la cavité que j'assèche à l'alcool et que je remplis aussitôt sans plus de précaution. Je recommande à mon patient de ne pas mastiquer sur cette dent avant le lendemain.

Je vois à ce genre d'obturation un avantage qu'aucune autre ne peut fournir, car je pourrai laisser cette dent sous observation pendant plusieurs semaines sans inconvénients. Si quelque chose survient, qui m'oblige à retourner au fond de la cavité, ce ciment sera plus facile à enlever que tout autre et n'aura certainement pas été une cause d'irritation. Si tout va bien, il ne me restera plus qu'à refaire mes parois de résistance pulpaire ou pulpaire et axiale selon le cas et à finir en amalgame ou en or. Cette obturation est devenue tellement résistante que pour la tailler il faudra des instruments bien tranchants ou employer les fraises.

Il n'est peut-être pas inutile d'ajouter que chez nous en hiver ou dans les pays très secs, ce ciment peut être préparé plusieurs jours à l'avance et conservé dans un petit récipient hermétiquement fermé. Quelqu'un a déjà eu l'excellente idée de le placer dans le bouchon creux d'une bouteille ou autre réceptacle déjà rempli d'un chlorure capable d'absorber l'humidité.

Dans les pays humides, il faut, comme pour tous les autres ciments, le préparer au moment de s'en servir.

L'Education du Patient par les Moyens Visuels

par NORMAND JEAN PAQUETTE, D.D.S., Rumford, Maine, U.S.A.*

"Du point de vue financier, la profession dentaire est une institution assez importante. Les capitaux qui y sont investis, per capita, sont probablement aussi lourds que ceux des chemins de fer, de l'industrie de l'acier ou de l'automobile, si l'on tient compte du nombre des individus qui y sont engagés. Aussi la dentisterie, si on l'envisage de son côté commercial seulement, exige des fonds plus considérables que bien d'autres branches des affaires. Laisserons-nous perdre pareils déboursés? Pourtant les revenus ne sont pas proportionnés aux dépenses.

La chirurgie dentaire est une nécessité de la vie.

Sa contribution à la santé, au confort et à l'apparence des gens devrait lui mériter une plus grande part de l'estime publique."

* Cette publication n'est qu'un résumé forcément incomplet d'un travail présenté par l'auteur au dernier congrès de Montréal.

Ici, l'auteur prouve son assertion par une série de statistiques de son pays, (les Etats-Unis). Ainsi de 1922 à 1929 le nombre des personnes qui fréquentaient le dentiste s'est bien accru de 12% à 21% mais pour retomber à 5% en 1935. Pourtant les montants dépensés par le public pour le soin de ses dents atteignent 235 millions en 1937, alors que les dentistes reçoivent moins que jamais.

Ici, l'auteur nous montre quelles dépenses folles, et quelquefois criminelles, peut faire un public fort mal dirigé. Ainsi il se dépense chaque année au-delà de

250 millions pour le contrôle des naissances,
235 " " les bijoux,
250 " " les produits de beauté,
330 " " les automobiles neuves,
505 " " le cinéma,
550 " " les fourrures,
2250 " " le tabac.

Y a-t-il un seul de ces items aussi nécessaire à la santé et même à la beauté que la dentisterie? Assurément non.

64,219 dentistes pratiquant aux Etats-Unis en 1934 avaient un revenu moyen de $2,787.00 par année. Comment se fait-il que ce revenu n'ait pas augmenté en 1935 et par les années subséquentes, puisque la population du pays semble avoir dépensé beaucoup plus que les années précédentes. D'abord le nombre des praticiens a augmenté et les clients se sont partagés. Ensuite parce que l'argent dépensé par le peuple pour le soin de ses dents n'est pas resté entre les mains des professionnels comme leur revenu légitime, mais a été drainé par les industries parasites de la profession. Si l'on veut se renseigner sur ce sujet on n'a qu'à consulter les rapports de la bourse de New-York. On y verra la différence entre la valeur réelle et la surcapitalisation de certains produits dentaires. On apprendra peut-être avec surprise qu'un manufacturier de dentifrice a payé un impôt sur le revenu plus élevé que les Dupont, Ford, Mellon, Morgan ou Rockefeller.

Enfin si la population ne dépense pas plus chez le dentiste, c'est que le dentiste ne sait pas l'attirer chez-lui. Ce point de vue apparemment matériel et égoiste ne l'est pourtant pas, car il est certain que le traité en retirerait encore plus de bénéfices que le traitant.

Ce n'est pas non plus l'argent qui manque au peuple; ses folles dépenses le prouvent. Le président des Etats-Unis, dit l'auteur, a confié un tiers de la population, soit 43 millions de personnes aux soins dentaires et l'état. Or, il appert, d'après une enquête menée par le New-York Stock Exchange et révélée à la radio par son président, que la moitié de ces gens appartiennent à des familles, qui outre leur compte de banque et leur propriétés immobilières, ont des valeurs évaluées à 125 billions de dollars et ceci en 1935.

Ce n'est donc pas l'argent qui manque, mais bien l'éducation. Beaucoup de gens ne croient pas plus au danger de mauvaises dents qu'ils ne croient à l'existence des microbes et ne vont chez le dentiste que poussés par la douleur. Il faut donc leur enseigner ce qu'ils ne savent pas et bien se garder de les tromper, car le jour où le peuple s'aperçoit qu'on l'a trompé pour lui arracher de l'argent, aucun moyen possible ne pourra faire renaître sa confiance.

Comment donc faire comprendre la nécessité des soins dentaires? L'auteur, non sans raison, invoque un proverbe chinois "Une image vaut mieux que mille mots", et nous dit que d'après son expérience tous les moyens sont bons: imprimés, conférences, conversation à la chaise etc. Mais que rien ne vaut l'éducation par l'image, les modèles, les dessins, les films, etc., rien de surprenant; voyons donc dans nos congrès. Les conférenciers ou cliniciens les plus recherchés par nos dentistes supposés instruits voire même érudits, sont ceux qui étalent le plus de modèles.

Pour atteindre son but M. Paquette divise son champ d'action en trois:

1o Le patient à l'extérieur du bureau.
2o Le patient dans la salle d'attente.
3o Le patient sur le fauteuil.

1o—Dans le premier cas, l'auteur entend par patients en dehors du bureau, ceux qui n'ont pas encore été atteints par une légitime publicité et qui pourtant devraient être amenés à consulter le dentiste. Pour atteindre ce but rien ne peut remplacer les conférences aux sociétés de toutes sortes, aux écoles ou à la radio, etc. Mais il semble bien que c'est avec les enfants qu'il a eu le plus de satisfaction. Si vous voulez plaisir et émotions, dit-il, parlez à ces petits enfants de six ans, vous serez surpris de l'intérêt qu'ils manifestent. C'est donc à l'école qu'il faut surtout porter ses efforts. Va sans dire que les modèles sont ici plus recommandés que jamais.

2o—Dans la salle d'attente il faut mettre à la disposition du patient les gravures et les imprimés les plus suggestifs, enfin tout ce qui peut l'instruire sur la santé de sa bouche. L'auteur croit aussi utile que les gravures ou photographies accrochées au mur soient de nature à inspirer le patient.

3o—Quant à la conduite à tenir à la chaise, il croit avec Sawtell de Brocton qu'un praticien ne devrait jamais se servir de ses instruments sans avoir causé au moins quelques minutes avec son patient. Il ajoute que chaque phase du traitement ou du travail de restauration devrait être expliquée au patient au moyen de modèles, gravures ou photographies.

A. Thibaudeau.

Le Curetage de l'Alvéole est-il à Conseiller Après une Extraction?

par GERARD DE MONTIGNY, D.D.S., Montréal.

D'abord permettez-moi de distinguer entre extraction et extraction;

1—S'il s'agit de la simple extraction d'une dent, dont la racine est saine et qui ne présente pas de raréfaction apicale, le curetage n'est certainement pas à conseiller.—Pourquoi irait-on irriter des cellules qui sont normales et saines? — On ne réussirait alors qu'à multiplier les chances possibles d'hémorragie et à retarder une guérison déjà assez tardive.

2—S'il s'agit de l'extraction d'une dent qui montre des complications apicales, où la radiographie nous indique clairement une décalcification de l'os apical, où il existe une fistule bien établie, *le curetage n'est pas à conseiller, non plus, dans la plupart des cas.*

Je ne dis pas jamais; car il existe des cas, où il faut cureter; dans un cas de kyste, par exemple, où la région infectée ou désorganisée est entourée d'une enveloppe de tissu épithélial, qui empêche la propagation ou l'étendue ou la marche de l'infection, il faut alors cureter car l'élimination naturelle de cette région infectée serait trop lente et on risquerait alors de voir ce kyste prendre des proportions gigantesques.

Ou quand la région infectée est circonscrite par une épaisseur de tissu formé par des phagocytes, des leucocytes, des globules rouges, des cellules conjonctives et où il n'y a aucun danger que cette infection se répande, on peut, je ne dis pas que nous devons, alors cureter.

Mais dans tous les autres cas d'infection apicale, il ne faut pas cureter. Pourquoi?

1—En curetant, nous risquons de briser des capillaires sanguins, où s'introduiront des bacilles ou des toxines qui sont susceptibles d'amener une septicémie locale ou générale.

2—En curetant, nous ne sommes jamais assurés d'avoir éliminé tous les microbes ou leurs produits et cependant nous avons détruit cette ligne de défense naturelle — cette ligne Maginot—que l'organisme avait élevé autour de cette infection; car il ne faut pas oublier que le devoir du médecin comme du dentiste est d'aider la nature, de marcher de concert avec elle et non pas de s'opposer à elle ou de détruire son travail. En curetant une alvéole, nous détruisons le travail déjà commencé par l'organisme, qui sous l'instigation du sympathique, a commencé à commander aux vaisseaux sanguins de la région attaquée de se gonfler, à laisser filtrer au travers de leurs parois des globules blancs, dont le devoir est de circonscrire l'infection et de combattre les microbes; dans cette région aussi, le tissu conjonctif environnant subit une transformation qui le distribue autour de ce foyer infectieux pour ne pas qu'il se propage etc., etc., et en curetant l'alvéole, nous détruisons ce beau travail, ce chef-d'oeuvre qu'est la résistance naturelle à l'infection.

3—En curetant, nous enlevons souvent des cellules, qui sont saines et nous irritons d'avantage cette plaie, qui ne demande qu'à se fermer et guérir le plus tôt possible.

Donc pour résumer, curetons le moins souvent possible, seulement quand une région infecte est bien localisée et bien entourée d'une gaine protectrice, dans les cas de kyste, dans les cas d'abscès bien définis.

Les Malins Directeurs et les Imbéciles Dirigés

(Reproduction du Journal Dentaire Belge)

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Le Professeur Pierre Mauriac, dans le Progrès Médical du 7 janvier 1939, émet, sous ce titre, quelques ironiques remarques sur la façon dont est conçue, dans certains milieux, la médecine d'aujourd'hui.

Après avoir critiqué l'orientation scolaire, il parle de la "santé dirigée".

Autrefois, il y avait les malades et les bien portants. Aujourd'hui, qui ose se dire en santé? Le souci que l'on a de la santé collective fait de chaque individu un suspect que menace la maladie. Chacun de nous, malgré les apparences, est un malade qui s'ignore; et si nous ne nous en soucions pas, d'autres s'en occupent, auxquels nous nous en remettons de notre existence, de notre avenir. Parce que notre ambition est de nous assurer sur la vie, d'avoir une retraite, de devenir fonctionnaire, la Société, la Compagnie, exigent des garanties; leurs ennemis sont la maladie et la mort. La médecine de contrôle fait un choix mettant à sa droite les élus qu'elle juge sains et voués à de longs jours, plaçant à sa gauche les réprouvés, les malades, les infirmes ou simplement les suspects. Pour ceux-ci, la terre promise est définitivement fermée; ils augmentent l'armée de ces "inaptes" qui voient du même coup s'effondrer leurs espoirs professionnels et le doute les envahir sur la solidité de leur santé.

Certes, bien des maladies sont ainsi heureusement découvertes et qui n'eussent pas

été soignées sans cet examen de hasard. Mais aussi que de tourments, que d'humiliations inutiles! Et quel aliment à l'angoisse de ceux qui doutent déjà!

Il fut un temps où la dureté de la vie ne permettait guère à l'ouvrier, au paysan, de cultiver son anxiété, son obsession. Les lois sociales sont venues qui lui donnent enfin cette liberté; comme le rentier, comme le bourgeois, comme l'intellectuel, il peut s'interroger lui-même, analyser ses sensations, ses malaises, épier le fonctionnement de son estomac, de son intestin, de son cœur, de ses poumons; aussi bien la vulgarisation médicale l'y invite et la publicité de merveilleux remèdes; mieux vaut consulter le médecin, obtenir quelques jours de repos, puisque la loi y donne droit; et si le doute persiste pourquoi se priver d'examens biologiques, de radiographies, etc.? Toutes les possibilités thérapeutiques sont ouvertes à tous; et trop souvent la réputation d'un médecin grandit dans la mesure où il exige les examens du sang, d'urines, les radiographies, même inutiles. J'ai vu l'autre jour revenir de l'étranger un de mes clients qui brandissait fièrement une liasse de fiches comportant toutes les analyses imaginables imposées par un confrère; il ne me serait pas venu à l'idée de les lui demander persuadé de son équilibre humoral parfait (et à la vérité tous les chiffres, toutes les épreuves étaient de la plus stricte régularité). "Tout de même, me disait-il, ne trouvez-vous pas étonnant qu'il faille passer la frontière pour être examiné complètement". Il ne lui en coûtait que deux mille francs pour savoir que rien ne le menaçait dans ses urines, son sang, ses selles, son liquide céphalo-rachidien. Les feuilles du laboratoire valaient bien les papiers de la banque; et le scrupule que j'avais montré de lui faire faire des dépenses inutiles tournait à ma confusion. La clientèle a les Knock qu'elle mérite.

Mieux vaut prévenir que guérir certes. Et on ne saurait trop applaudir aux bienfaits de la lutte antivénérienne et antituberculeuse, même dans une certaine mesure à l'utilité de l'inspection médicale scolaire. Mais il ne faudrait pas que la prévention, la prophylaxie comme disent les médecins, créât pour l'humanité une existence enchaînée, limitée, réglée à la minute. Il y a tout de même des gens qui, en dehors de malaises passagers, ont mieux à faire que de dépenser leur temps et leur argent chez le médecin. On a tant dit que la maladie est en nous et autour de nous, on a dénoncé si souvent les hérédités malsaines qui fermentent en nous, qu'une sourde angoisse nous tient. Et puis le médecin de famille n'est plus là pour donner le conseil, dispenser l'apaisement. On écoute Pierre et Paul; on ne fait rien que l'on n'ait consulté le dictionnaire médical; et si le doute surgit on sonne à la porte du spécialiste. Car rien ne vaut que le spécialiste: foin du médecin de médecine générale. "Allo! Docteur? Vous êtes bien spécialiste du diabète?—Pardonnez-moi, madame, je m'occupe de médecine générale et m'intéresse, en effet, particulièrement, au diabète. —Mais enfin, êtes-vous spécialiste?—J'ignore, madame, ce que vous voulez dire.— Tant pis; excusez-moi, on m'avait dit que vous étiez spécialiste du diabète." Et elle tournera la manivelle du téléphone jusqu'à ce qu'elle ait enfin entendu la voix qu'elle appelle: "Oui, madame, je suis diabétologue".

Souvent aussi on ne sait à quel organe accrocher son inquiétude: est-ce le cœur, le poumon, le rein, les glandes qui me valent cette lassitude, cet agacement, cette mélancolie, ces vagues douleurs? Heureusement l'acupuncture, la réflexothérapie savent débusquer le mal de ses repaires les plus mystérieux. A tout le moins les oscillations du pendule s'arrêteront sur l'organe malade, et me livreront le secret que mon médecin n'a pas su découvrir: "Docteur, c'est mon foie qui est . . . malade, faites le nécessaire".

Et, après avoir montré les abus du régime chez les enfants, le Professeur Mauriac conclut:

Il faut bien du désintéressement au médecin pour résister à la sottise de la clientèle qui ne lui sait aucun gré de ménager sa bourse et sa santé.

Il y a de beaux jours pour les charlatans. *(Bruxelles-Médical.)*

Cause d'Extractions des Dents: Statistiques

par GERARD DE MONTIGNY, B.A., D.D.S., M.S.D.

Le travail, qui va suivre, fut entrepris pour fixer les raisons les plus fréquentes de la perte des dents et en même temps pour étudier la proportion de ses causes en rapport avec les sexes, l'âge et l'état général des patients. Nous avons de plus essayé de déterminer le pourcentage de la perte des dents en rapport avec leur situation dans la bouche, leur degré de destruction par la carie, l'état des dommages survenus dans les tissus péridentaires, et les divers facteurs (tels que leur inutilité au point de vue fonctionnel, tumeurs etc.) nécessitant leur avulsion.

Mode D'Enquete

Cette étude statistique fut faite du début de février 1935 jusqu'au ler mai, sur des patients choisis au hasard, qui se sont présentés à la clinique de Chirurgie Buccale de la Faculté Dentaire de l'Université Northwestern, pour y subir des extractions dentaires.

Chaque dent fut examinée et son état vérifié dans la bouche avant l'extraction. L'examen était fait à l'aide d'un miroir, d'un explorateur et d'explorateurs à membrane péri-dentaire.

L'âge des patients, leur état général, l'histoire du traitement de chaque dent à extraire, tout fut noté. Le diagnostique fut confirmé par des radiographies, quand celles-ci étaient disponibles. Les résultats de l'examen étaient notés sur un dossier spécial, qui contenait: (1) l'âge, (2) le sexe, (3) la position de la dent ou des dents en question, (4) la raison de son extraction, (5) l'état organique du patient, (6) les révélations des radiographies, quand elles étaient disponibles. Pour faciliter les recherches, les causes les plus fréquentes de l'avulsion des dents furent indiquées sur une liste, qui apparaît plus loin.

Plus d'une fois, plusieurs causes étaient responsables de l'extraction de la même dent; dans ces cas, la raison prédominante était notée. Cette enquête sur les causes de la perte des dents fut menée sur 980 patients de tout âge et de toute condition; les dents examinées se chiffrèrent à 2,893.

Les rapports des causes d'extractions, et de l'état général des patients ne purent être considérés parce qu'en plusieurs occasions, des causes différentes pour les extractions existaient dans la même bouche.

Tableau No 1

Nombre de patients en rapport au sexe et à l'âge

Hommes		Femmes	
0-10 ans	39	0-10 ans	28
11-20 ans	59	11-20 ans	61
21-30 ans	103	21-30 ans	98
31-40 ans	99	31-40 ans	95
41-50 ans	100	41-50 ans	94
51-60 ans	60	51-60 ans	71
61-70 ans	48	61-70 ans	25
	508		472

Nombre total des patients: 980

TABLEAU No II

Fréquence des dents extraites

Nombre total : 2,893

		8	7	6	5	4	3	2	1
D	H	59	85	117	119	115	114	108	118
	B	60	76	103	87	100	88	85	79
G	H	58	93	105	89	97	103	99	116
	B	58	77	94	77	79	83	74	78
Totaux		235	331	419	372	391	388	366	391

TABLEAU No III

Fréquence des causes d'extractions

			Nombre de dents	*Pourcentage*
1. Caries			905	31.29
2. Complications pulpaires			422	14.58
(a) Pulpe exposée	88	20.85		
(b) Raréfaction apicale— Canal radiculaire intact	135	32.22		
(c) Raréfaction apicale— Canal radiculaire traité	137	32.46		
(d) Dent dévitalisée douteuse	30	3.80		
(e) Nodules pulpaires— Autres dégénérations	0	0.0		
(f) Dents brisées par accident	6	1.42		
(g) Pulpe détruite par abrasion	1	0.21		
(h) Pulpe détruite par aucune cause apparente	3	0.73		
(i) Dent enlevée à la demande du patient	22	5.21		
3. Paradentose			945	32.67
(a) Dents branlantes	395	41.79		
(b) Dents entourées de sacs de pus	550	58.21		
4. Dents incluses			37	1.27
(a) Extraites dans un but préventif	15	40.54		
(b) Extraites dans un but curatif	22	59.46		
5. Tumeurs			4	0.14
6. Accidents (Extraites par erreur)			6	0.21
7. Corrections Orthodontiques			13	0.45
8. Corrections prothétiques (Dents sans fonction)			482	16.66
9. Dents temporaires			31	1.07
10. Autres causes			48	1.66
			2,893	100%

TABLEAU No IV*

Maladies systémiques se rapportant à l'âge et au sexe des patients
Nombre de patients souffrant de maladies systémiques : 209 ou 21.31%

Hommes : 79 ou 8.06% de tous les patients.
Femmes : 130 ou 13.26% de tous les patients.

Maladies systémiques attribuées aux dents :	*Nombre*	*Pourcentage du Nombre de maladies*
Rhumatisme	50	24.00
Arthrite	42	20.00
Maux d'estomac	18	8.61
Fatigue, faiblesse, affaissement	17	8.12
Maladies du coeur	15	7.17
Troubles du système respiratoire	7	3.35
Nervosité	6	2.87
Maux de tête	6	2.87
Douleurs du dos (lumbago)	5	2.39
Hypertension	5	2.39
Eruptions cutanées	4	1.91
Trouble fonctionnel de la vessie	4	1.91
Névralgie	4	1.91
Névrite	4	1.91
Trouble d'intestins	3	1.43
Maladie des yeux	3	1.43
Sinusite	2	0.95
Diabète	2	0.95
Varices	2	0.95
Troubles de la ménopause	2	0.95
Désordres du rein	2	0.95
Cellulite	1	0.47
Goître	1	0.47
Etourdissement	1	0.47
Apathie	1	0.47
Sciatique	1	0.47

* Les patients dont les affections sont rapportées dans le tableau inscrit ci-dessus, en général recherchaient un soulagement à leur maladie par l'élimination d'un foyer infectieux dentaire possible, mais on ne tenta nullement de vérifier leur diagnostique ni d'établir de relation entre leur état buccal et leurs désordres organiques.

Tableau No V

Rapport des causes d'extractions à l'âge des patients

Age	0-10		11-20		21-30		31-40		41-50		51-60		61-70		
	H	F	H	F	H	F	H	F	H	F	H	F	H	F	Total
Causes*															
1	43	42	56	100	90	110	69	117	71	77	37	34	35	24	905
2a	0	4	6	11	20	9	8	10	6	5	4	1	3	1	88
2b	6	5	12	4	13	7	18	12	5	11	4	27	10	1	135
2c	0	0	2	4	13	7	14	11	9	34	13	15	6	9	137
2d	0	0	0	1	1	2	7	8	1	2	6	1	1	0	30
2e	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2f	0	0	0	0	3	0	0	1	0	0	0	1	1	0	6
2g	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
2h	0	0	0	0	1	0	0	1	0	1	0	0	0	0	3
2i	0	0	0	0	0	0	4	15	0	0	0	3	0	0	22
3a	0	0	3	2	3	5	23	29	74	63	58	50	63	21	395
3b	0	0	6	12	17	28	75	35	122	85	68	14	55	33	550
4a	0	0	3	2	5	3	1	0	0	1	0	0	0	0	15
4b	0	0	3	0	10	4	1	3	0	0	0	0	1	0	22
5	1	0	1	1	0	1	0	0	0	0	0	0	0	0	4
6	0	0	0	0	2	3	1	0	0	0	0	0	0	0	6
7	0	0	5	5	2	0	0	0	1	0	0	0	0	0	13
8	0	0	3	5	13	59	23	45	43	83	40	77	53	38	482
9	18	4	7	1	0	0	0	1	0	0	0	0	0	0	31
10	0	0	0	3	3	7	4	12	2	8	6	3	0	0	48
														Total :	2,893

* Voir le tableau No III, pour la liste des causes.

Resultats de L'enquete

Cette étude fut instituée sur des sujets pris au hasard parmi les patients qui se présentèrent à la clinique de l'école dentaire pour y faire extraire des dents, durant une période de trois mois.

Si ce rapport est un aperçu des conditions qui existent dans tout centre urbain, les conclusions suivantes sont justifiées:

1) C'est entre 20 et 50 ans, que les extractions dentaires sont les plus fréquentes.
2) Il y a une distribution assez égale quant aux sexes dans tous les groupes d'âge.
3) Il n'y a pas de disproportion bien grande dans la position des dents, qui ont été extraites; les premières molaires sont extraites plus fréquemment que toute autre dent; et les dents supérieures sont extraites plus souvent que ne le sont les dents inférieures.
4) La cause la plus fréquente des avulsions dentaires est la carie, si nous classifions dans la section de la carie les dents perdues à cause de complications pulpaires.

   La deuxième raison la plus fréquente de la perte des dents est la paradentose. Les dents extraites dans un but prothétique, c'est-à-dire à cause de leur inutilité au point de vue fonctionnel étaient sans doute aussi en plusieurs circonstances minées par des affections péridentaires.
5) On ne peut tirer de conclusions des maladies organiques dont souffraient les patients si ce n'est que les personnes souffrant de rhumatisme paraîssent chercher, dans l'extraction de leurs mauvaises dents une guérison possible.

"Errata"

Dans un article intitulé "Bibliographie" à la deuxième ligne de la page 51, au lieu de "l'Université de Montréal, où Hauter . . . . on devrait lire: l'Université McGill de Montréal, où Hunter . . . . Cette erreur qui est probablement dans l'étude de MM Alianos et Chaniote a passé sous les yeux de M. Huttinger qui n'avait aucun moyen de la contrôler et nous a complètement échappé à première lecture.

Necrologie

A Miami, Floride, est décédé le docteur Armand Marcoux, un de nos confrères, bien connu à Montréal.

Nous prions sa famille et ses amis d'accepter nos condoléances.

La Rédaction.

Courtesy Canadian National Railways.

SCENIC BEAUTY AT JASPER NATIONAL PARK

● One of the beauty spots of Jasper National Park is Mount Edith Cavell. The above picture was taken in front of Jasper Park Lodge showing Lac Beauvert in the foreground. This picture was taken exactly 20 miles from the mountain itself. The beautiful mountain was named after the heroic nurse of Great War fame, Nurse Edith Cavell. At its foot lies a sparkling little lake, now named the Lake of Forgiveness; near the base of the mountain is a glacier, now named the Glacier of The Angel. All names were chosen as a tribute to the memory of Nurse Cavell.

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Photo by Karsh, Ottawa.

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A General Discussion of Periodontia*

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PERIODONTAL disturbances have been a dental problem as far back as it is possible for man to trace. It is an outstanding question in dentistry today, but with the aid of technological equipment in the field of histology, pathology, and chemistry, we are beginning to solve some of the factors involved, that previously seemed impossible.

Histology

Briefly, let us review the histology of the supporting tissues; they are the gingivae, cementum, periodontal membrane and the alveolar process.

The *gingiva* is a continuation of the gum, the function of which is to protect the underlying tissues. It is closely adapted to the gingival portion of the teeth, thereby protecting the periodontal membrane from harmful agents. Normal gingivae taper to a knife-like edge at their crest, thereby avoiding the formation of a shelf upon which debris might lodge.

Connecting the gingiva with the tooth surface is the epithelial attachment. It is a continuation of the oral epithelium and extends from the gingival crevice toward the cemento-enamel junction and attaches itself to the cementum. This tissue is important, as it acts as a barrier against attack upon the underlying connective tissue. It is the first line of defence against outside irritants. When this connection is severed by trauma or inflammation, the gingival crevice is deepened, thereby starting the formation of a periodontal pocket.

Cementum. It is a connective tissue of calcified substance, arranged in layers around the roots. Its function is to attach the periodontal fibres to the root surface. It is the thickness of a hair at the enamel border and increases slightly to reach its greatest thickness at the apex. In scaling the root surface, we must bear this in mind, to avoid unnecessary cutting or grooving of the cementum, thereby causing hypersensitive areas. Under normal conditions secondary cementum is being built continuously by the fibres of the periodontal membrane. When the periodontal membrane becomes detached due to irritation or infection, the cementum, unable to reproduce itself, becomes one of the surfaces that form the pocket.

Periodontal Membrane. It is the connective tissue that fills the space between the surface of the root and the bony wall

* Presented at the Refresher Course given at Dalhousie University Dental School, August 31, 1939.

of the alveolus surrounding the root occlusally to the border of the alveolus, and supporting the gingivae. The periodontal membrane does not stop at the border of the bone, but continues to surround the root as far as the tissues are attached to it. It also extends into the free margin of the gums, and is the means of their support, holding the gingivae close to the surface of the tooth and supporting them in the interdental spaces. The importance of this segment of the periodontal membrane cannot be too strongly emphasized, as it is at this point that periodontoclasia starts. Its vital function is the formation of bone on the alveolar wall and cementum on the surface of the root.

Alveolar Process. It is that portion of the maxilla and mandible which supports the teeth. It surrounds and forms the sockets in which the roots of the teeth are held by the periodontal membrane. The process develops with the teeth. Its structure is moulded in response to the functional demands of the teeth and disappears when the teeth are lost. The alveolar process consists of an outer layer of cortical plate, an inner plate known as the lamina dura, and an intervening layer of supporting spongiosa. The alveolar crest which is formed by the union of the cortical plate and the lamina dura, is the point that breaks down first. The loss of this portion of the alveolar increases the load that the remaining section of covered root must carry, thereby increasing the susceptibility of the tooth to become mobile.

Pocket Formation

These are two types: first, that which is initiated by local or exciting factors, such as calculus, food impaction, or irritation from overhanging fillings. This type is the most common; it is referred to in the literature by various names, some of which are marginal and horizontal periodontoclasia. It commences with a gingival inflammation and progresses apically with age, if unchecked. If associated with systemic disturbances, the destruction is accelerated with a greater possibility of the loss of the entire tooth.

The other type is that due to systemic disturbances, and is generally known by such names as periodontosis, vertical or diffuse alveolar atrophy. This type is recognized clinically by a decided separating or drifting of the teeth, followed by their becoming loose in their sockets. In the marginal type, the pocket comes first, followed by mobility of the tooth, whereas in the diffuse alveolar atrophy, the drifting of the teeth precedes the formation of the pocket.

Let us trace the formation of a pocket of the simple type. One of the most common occurrences is the lodging of food in the interdental spaces. In many cases the individual invariably uses a wooden pick to dislodge the particles; in his attempt to force the food through the interdental space, the food is forced deeper into the gingival crevice. This simple act starts a vicious circle, the epithelial attachment has been traumatized initiating an inflammation. The clinical picture at first is a change in the colour of the points of the papillae. The colour becomes deeper, spreads to the bases of the papillae and thence to the gingival margins. As the inflammation spreads, the colour becomes a definite purple, indicating a passive or venous congestion. In the early stages this inflammation will subside, but not without its having caused the crevice to become deepened. The deepened crevice permits the deposit of film, debris, and bacteria, leading to the possibility of the development of caries on the approximating surfaces as well. This deposit causes further irritation of the soft tissue, spreading the inflammation into an hypertrophy of the gingivae, thereby increasing the

depth of the crevice. During this stage haemorrhage of the gingivae takes place, causing a deposit of serumal calculus upon the exposed cementum just below the cemento-enamel junction. This layer of subgingival calculus acts as a further irritant upon the soft tissue, causing the periodontal membrane to disintegrate. At the same time there is an infiltration of the inflammatory cells into the underlying connective tissue. The chronic inflammatory stage is reached at this point, and it may remain in this condition for some time. Destruction of the periodontal membrane causes the gingival epithelium, which now lines the crevice, to grow apically in order to give protection to the exposed connective tissue. The alveolar crest, having lost its organic attachment to the tooth, breaks down, exposing the cementum. This is the first stage of a periodontal pocket consisting of two walls, the cementum and the crevice epithelium. This greater depth allows debris and bacteria to lodge and increase without mechanical interference, and as a result the soft tissue is attacked precipitating ulceration and the discharge of pus from the crevice. The constant flow of pus penetrates the alveolar process; the periodontal membrane attachments are loosened and lost; thus we have a deeper and wider pocket. The tooth becomes mobile. The mobility increases in degree, and the destructive process, if left unchecked, leads finally to the loss of the tooth.

Pocket formation in Diffuse Alveolar Atrophy. The cause of this type of periodontoclasia is vague and obscure; it is generally associated with metabolic or glandular disturbances. The destruction commences with the inner periodontal tissue and progresses to the outer membrane. The periodontal membrane disintegrates; there is an inability to form secondary cementum, and a diffusion of the alveolar process. The periodontal membrane is replaced by a fibroid tissue and with the loss of the alveolar process also, the tooth commences to drift followed by the formation of a pocket, which is the reverse of the first type. Food lodges in the crevice on the side of the tooth from which it is drifting causing a gingivitis, progressing into a pocket, with the eventual discharge of pus. It is in this type of periodontoclasia that the occlusion must be kept under constant observation, as the mobility and the drifting of the teeth, if allowed to continue unchecked, will develop into a severe case of traumatic occlusion.

Diagnosis

The importance of diagnosis has always been an outstanding factor in the practice of dentistry, coming to the front in much greater strides in recent years. In the past our energies and studies emphasized restoration or the art of dentistry; whereas now we look forward to the prevention and control of oral disease. The mouth is a reflector of systemic disturbances from childhood to senescence and should be recognized as such. The teeth and the supporting tissues are not to be considered as foreign bodies, and treated as such, but as an important section of the entire structure. Consequently, when a patient presents himself with periodontoclasia do we ask ourselves the question, is it possible that the local condition is associated with some predisposing factor? Were the clinical manifestations first noticed preceding or following any systemic upset?

To many men in practice, a diagnosis consists in making an examination of the mouth, recording the location of the carious areas and the teeth missing, little or no attention being paid to the condition of the supporting tissues. If the patient should bring to the attention of the dentist the fact that his gums bleed, the dentist makes very light of it, and

usually suggests the use of some mouth wash or a certain brand of tooth paste.

From my experience, it appears that the average dentist recognizes periodontoclasia in the late stages, that is when the teeth are loose or there is a discharge of pus from the crevice. In these stages the prognosis is unfavourable or possibly questionable. The patients are informed that their condition is hopeless without first making a thorough examination and a possible attempt to control the condition, and to retain the teeth, especially if the patient is of the co-operative type.

Gingivitis

Let us consider various cases of gingivitis, some of which come at an early age. At puberty, the system is undergoing a decided change; this transition is too great for many who are in poor health to pass through, without some external manifestations. I was called to a case at the time a girl was passing through this period. Previous to my visit she was under the care of a physician, as the family became concerned when she developed fever, was listless and had difficulty in swallowing. The physician diagnosed the oral inflammation as Vincent's and prescribed a popular preparation to be used as a mouth wash. At the drug store where they went to purchase the powder, the druggist suggested that they call a dentist to see if it was "trench mouth" as he was better trained to treat that type of infection. It was necessary for me to see the patient at home, as the doctor advised keeping her in bed until the fever had passed. The appearance of the gingivae when I saw the patient, presented a red glazed surface, hypertrophied, covered with sordes, without the ulcerations as found in Vincent's. The deposits of film which had accumulated acted as an irritant upon the lowered tissue and greatly aggravated the condition.

The treatment in this case is to have the patient rinse the mouth with a solution of equal parts of hydrogen peroxide and warm water at about two hour intervals. As soon as possible after the fever has left, have the patient come to the office for a superficial scaling, discontinue the use of the peroxide wash, and in its stead, have her use the brush very lightly using sodium bicarbonate as a dentifrice. This treatment is followed by a thorough prophylaxis, advising her to brush the teeth and gums vigorously, thereby building a resistant tissue against possible haemorrhage at the coming menstrual periods.

A gingivitis commencing at the flap of tissue overlying a partially erupted third molar is also noticed in young persons. The patient traumatizes the flap during mastication, thus initiating an inflammation, and tries to avoid using that side with the result, that the gums become spongy within a short time; calculus and debris accumulate, as the patient brushes that side very lightly if at all. The fact is that the tissues being tender to touch, he tries to avoid aggravating matters. The lack of care and function leads to a generalized gingivitis, which involves both the upper and lower gingivae.

A case of this type came to my attention recently where the dentist had been treating the condition for three months. He diagnosed the case as a Vincent's infection, and was trying to affect a cure by the topical application of various drugs. Some of the medicaments were of the caustic type, the constant application of which attacked the enamel — cementum junction, developing hypersensitive areas. At no time during the treatment of this case, did the dentist use scalers to remove the superficial calculus and debris that was always present. It is a mystery to me why so many men fail to use scalers when the occasion demands, instead of drugs. The treatment is the same as for

the previous type, scaling, stimulation of the gingivae with the brush, and above all, to return to the affected side for mastication. The hypersensitive areas are treated with formalin. The surfaces are first dried, and the formalin applied with an orange wood point inserted in a porte polisher.

Gingivitis in mouth breathers is also found at an early age. In such cases, swelling of the labial surfaces of the upper and lower anteriors takes place. This is due to the individual sleeping with his mouth open, the soft tissue becomes dry, the accumulating deposits irritate the gingivae, causing an inflammation, followed by swelling. Such conditions are also being treated with medication, suspecting a Vincent's, infection. Where the operator has any doubt as to the diagnosis, simple cases of gingivitis are being treated for Vincent's, regardless of the condition becoming worse, as I have shown, instead of improving. In the case of mouth breathers, the underlying factors must be considered; such as, enlarged tonsils, adenoids, or possibly some nasal deformity, before satisfactory results can be obtained.

Gingivitis in which the individual is allergic to certain proteins is also seen in the young as well as in adults. This form of gingivitis is also mistaken for Vincent's or possibly for a mixed infection. To illustrate, a typical case in which allergy was the factor follows:—

The patient, female aged twenty-two, came to the office with a gingivitis, the cause of which was not apparent on the surface. Her mouth was well cared for, the restorations were of the highest type, and the occlusion favourable. All possible factors were eliminated until we came to the question of food. I inquired as to what particular food she had had the previous two or three days that she very seldom eats. This brought out the fact that she did have a large lobster dinner two days previous. The lady is a resident of the middle west; she never had any desire for this fish, but thought she would like to try it before returning home, with the above experience, I warned her regarding the possibilities of eating other shell fish.

Vincent's Infection

I consider that in a true case of Vincent's infection the clinical picture shows the typical greyish membrane, on removal of which haemorrhage of the gingivae takes place. The patient feels sick, feverish, has a bad taste in the mouth with foul odour. In a smear, taken from a suspected area, the spirillum and the bacillus predominate. The office treatment at the first visit is a superficial swabbing of the tissues with hydrogen peroxide, advising the patient to discontinue smoking, and not to eat any form of spicy foods. The following day, if the inflammation has subsided, do a superficial scaling, applying the peroxide freely while operating. The following day, if the condition permits, use curettes to plane the tooth surfaces, as well as for the removal of the outer layer of the infected epithelium, using the peroxide also. At home the patient should rinse the mouth thoroughly with hydrogen peroxide and warm water, equal parts every two hours, and after every meal. With the co-operation of the patient, the condition should be relieved or under control within a week.

In many cases the results are not satisfactory. The condition seems to be slow in responding to the treatment. In such cases, I suspect some systemic disorder is possibly involved, always bearing in mind the question of lues. When such conditions arise, I explain matters to the patient, suggesting the advisability of a physical examination, to include a blood test as well. In patients who are undergoing treatment with bismuth, a blue line appears in the gingivae close to the necks

of the teeth or at the crest of the papillae. This manifestation is self-explanatory; it will disappear as soon as the irritants from the teeth and the crevices are removed.

Cases of Vincent's that are found difficult to control, may be linked up with a glandular disorder, such as the following case:—

The condition would appear cleared, only to have the inflammation return; this continued for a number of months. Discussing the possibility of systemic involvement, the patient informed me of having irregular and painful menstrual periods that were of long duration, with a great deal of haemorrhage. She agreed that the gingival reaction would appear when she was passing through a severe menstrual period. Going deeper into her case, she informed me that an operation had been advised which for various reasons, she found it impossible to undergo. I gave her to understand that in order to get results with the treatment of the gums, it would be necessary for her to do something about the physical disability. She went to see a physician who prescribed a tonic for temporary relief. I noticed that during the time when she was taking the drug, the oral condition would not flare up as often or be as severe.

Diabetics are also difficult to control if they fail to co-operate in the treatment of their gingivitis. The clinical picture in advanced cases presents a swollen, spongy, bluish gingiva. Upon questioning, if they inform me that they are diabetic and under treatment, I inquire if they have failed to observe their diet during the past two or three days. Without fail they will admit their carelessness and also their failure to take the prescribed amount of insulin.

We must be on the watch for diabetics at all times. In diabetics there is a disturbed metabolism which tends toward the formation of calculus.

Habits

Certain habits eventually lead toward periodontoclasia if not controlled in the early stages. Biting of threads, or removing the metal covers from bottles are two of the most common. An overstimulation of the periodontal membrane takes place with loss of tissue-tone, and finally the teeth become mobile. Many of these patients come to us boasting of the strength of their teeth in their youth; they cannot understand that the resistance of the tissues diminishes with advancing age; that it cannot withstand the constant pulling upon the tooth without eventually causing the supporting structures to break down.

Another group to be considered are the individuals who grind their teeth during sleep. Many of these patients are suffering from some form of physical disorder, or are of the neurasthenic type. Until the possible systemic factor is eliminated, relieving the high spots to control the occlusion is the treatment indicated in these cases.

Periodontoclasia associated with certain types of employment is common, the detection of early manifestations being of the utmost importance.

From my own observations, gingivitis becomes manifest clinically at the age of thirty-five; and the purulent stage, at the age of forty-two. These deductions were arrived at by examining hundreds of patients who passed through the outpatient department of the hospital for medical attention only, not dentistry, combined with patients who came to the office for dental service. Using these ages as a guide, I approximate the probable onset of the periodontal disturbances, to aid considerably in the diagnosis of the cases.

Diffuse Alveolar Atrophy

This is the most perplexing type of periodontoclasia that we have to deal

with; in many instances it is found in adults that are still in their twenties. Clinically, there are definite symptoms to guide us in diagnosis, such as an apparently clean mouth, no carious teeth and the unaffected gingiva, light pink in colour. Where the pocket is present, the tissue is puffy and glazed and there is a tendency of the teeth to drift, especially the upper lateral incisors; there is little or no abrasion of the cusps, and no pain. Placing an explorer into the crevice on the side from which the teeth are moving, we discover the presence of a deep vertical pocket. This form of periodontoclasia is found frequently among the Italian people, both male and female. In discussing the case with the patients, it appears that it is hereditary in character. The aetiology of this type is uncertain, but disturbed metabolism must play an important role. In this type there is a disintegrating of the periodontal membrane, a failure of new cementum to form, and the absorption of the alveolar process. Patients will approach with the statement that their upper front teeth have separated and moved out of line. They do not remember when or how it took place. They will state that one of their parents had the same trouble, the teeth becoming loose and finally extracted because of pyorrhea. Treating these cases requires the controlling of the secondary factors until a more definite knowledge of its aetiology is found. The exciting factors are calculus, and the changing occlusion.

Treatment of Traumatic Occlusion

There are many operators who consider traumatic occlusion as an aetiological factor in periodontoclasia. There is no doubt that excessive occlusal pressure, or pernicious habits, will force the teeth out of alignment or cause the weakening of the periodontal membrane. To practise preventive dentistry by grinding the inclined planes of the cusps injudiciously, is to ignore all biological concepts. In youth, the tissues of the body are more resilient and the periodontal membrane can withstand stresses and strains that would be excessive in old age. An individual may vary at different periods of his life as to the extent of tissue tolerance in its ability to carry heavy loads. If teeth with deep cusps are in malocclusion or have an extensive overbite either an abrasion of the occluding surfaces, a reinforcement of the periodontal membrane or both will take place. If the stresses and strains are greater than the teeth can tolerate with advancing age, the periodontal membrane fibres on the side of the pull become loose, whereas the fibres on the side of pressure are compressed. Under such circumstances it is advisable to relieve the high spots in order to place the occlusion in physiological function.

Treatment of Pocket

Various mechanical means are employed in the treatment of the periodontal pocket. The most widely used technique is the one using scalers and curettes for subgingival operating; it is known as the conservative method. Many men use surgical means to remove the entire gingival tissue involved, which is commonly referred to as gingivectomy. A combination of the methods gives satisfactory results. Various types of electrical apparatus are on the market for the removal of the gingival tissue, but the average operator expects too much from their use. Difficulty in the after treatment is encountered, whereas by the conservative method, there are no after effects. Acids of various formulas are also used. When placed in the crevice, their function is to destroy the epithelial lining of the pocket, or to cauterize the gingiva.

In curetting the pocket, one must always bear in mind that the cementum is to be planed smooth, and the epithelium lining of the pocket removed. The exposed connective tissue does not re-attach itself to the cementum as many men suppose, but we do get a close adaptation of the soft tissue to the root surface with an atrophying of the gingivae, thereby eliminating the depth of the pocket to a considerable degree.

For home care, a small tooth brush is recommended, with instruction given in its proper use, stressing the importance of maintaining a healthy gingival circulation. The friction of the brush upon the oral epithelium increases the resistance of the tissue to irritants; it also hinders the possibility of venous stasis.

Providing the constitutional background of the individual is good, the supporting tissues can be maintained in a healthy state by eating foods which require mastication, such as raw fruits, uncooked vegetables, and the like. The friction of the food as it passes over the crowns of the teeth removes the film, and acts as a stimulant upon the soft tissue to keep it firm and healthy.

In treating periodontoclasia, many of our cases require co-operation with the family physician. It is difficult to obtain this co-operation in many instances, as the physician feels, rightly or wrongly, that teeth, whether devitalized or possibly pyorrhetic, must be removed as a means of eradicating a questionable focus of infection. If the physician would question the patient regarding his illness, with the intent of removing the teeth as a last resort or possibly not at all, our co-operation would be much more gratifying. An illustration of such a case was brought home to one of my patients. He came to see me supporting himself with the aid of a crutch, as he was having difficulty in using his right leg. I was very much surprised and asked if he had met with an accident; he said no. The physician diagnosed his trouble as arthritis of the right knee; advised having his upper left central incisor removed as he considered that tooth was the source of infection. By extracting the tooth, he felt the arthritis would be relieved. This patient was dismissed by me a month previous with his mouth in a healthy state. I refused to agree with the suggestion made by the physician; instead, I questioned the patient as to the many possibilities that may have traumatized the knee. One question led to another, and finally a thought came to him that possibly it was due to the position he assumed while preparing strawberry beds in the garden. He spent three days in the garden and a great deal of the time the right knee was resting on the ground. With home remedies, a gradual exercising of the knee, he was able to return to work without the aid of a cane, and the central incisor functioning as well as ever.

I am especially interested in emphasizing the great possibilities which the field of periodontia has as an aid in the diagnosing, prevention or control of disease. Whether the periodontoclasia is of the simplex or complex type, it is concerned with the circulatory system. We must also bear in mind that the mouth is part of the alimentary tract, and symptoms in the mouth may be reflected elsewhere along the course, as in the case of a man with pernicious anaemia. Many of our patients present a gingivitis of the chronic type, whereas others of the same age have periodontoclasia in the advanced suppurative stage. Individuals showing such marked variations in this disease may, or may not, develop organic disturbances for some time after the onset of gingivitis. In an early tendency toward tissue breakdown in which the re-

cuperative powers are slow in functioning, we can suggest to the patient the value of keeping the body in the best possible physical condition.

Individuals coming from families in which cancer is present, and where an early breakdown and slow repair of the tissue in one of the members is detected, I warn these patients of the role irritants play upon a generalized lowered body resistance.

The average individual will come to us with very little hesitancy, whereas a visit to the physician is made when other means of relief have failed. Therefore, we are in a position to be of great help in advising medical attention to ward off gross destruction.

To improve our diagnostic capabilities, hospitals or like institutions should permit dentists to become associated on the visiting staff in whatever department appeals to their temperament or inclination. By this method there will come a closer relationship with the medical men, thereby helping to solve many of the medical-dental problems. It will help to broaden our basic knowledge, which may be used to advantage, where the question of prognosis involves the advisability of extensive restorations. The body will be considered in terms of the whole, not as one composed of separate and unrelated parts. The medical man will refer a patient to the dentist asking for a mutual consultation, and not, as in many cases, as at present, with a recommendation for extractions. Many of our so-called incurable cases of pyorrhea will be found to be controllable and respond satisfactorily to treatment.

To summarize:—Study your case; inquire into the possible cause. Is there a possibility that the condition may return and under what circumstances? Know what you expect the clinical picture to be when the case is completed, using whichever technique you may find satisfactory to attain the expected result. I feel sure that perseverance in conscientious hands will be rewarded. Confidence will increase and satisfactory results will follow in proportion to the time and effort that is put into this interesting phase of oral health.

In conclusion, it will be well to remember to stop, look and reason, before commencing any operative work.

Conventions

THE NATIONAL DENTAL CENTENARY CELEBRATION, BALTIMORE, MD., MARCH 18-20, 1940.

CANADIAN DENTAL ASSOCIATION AND ONTARIO DENTAL ASSOCIATION, ROYAL YORK HOTEL, TORONTO, ONTARIO, MAY 27-29, 1940.
(Dentists from the United States and from all parts of Canada will be welcome.)

AMERICAN ACADEMY OF PERIODONTOLOGY, CLEVELAND, OHIO, SEPTEMBER 5-7, 1940.

AMERICAN DENTAL ASSOCIATION, CLEVELAND, OHIO, SEPTEMBER 9-13, 1940.

AMERICAN DENTAL ASSISTANTS ASSOCIATION, CLEVELAND, OHIO, SEPTEMBER 9-12. HEADQUARTERS CLEVELAND HOTEL.
(Lucile S. Hodge, Gen. Sec., 401 Medical Arts Building, Knoxville, Tenn.)

When we are young we make up our minds to try and get what we want; when we have arrived at years of discretion we decide to try and want what we get. It saves time.—Jerome K. Jerome.

*Patient Recall Service**

by RALPH R. DALGLEISH, D.D.S., Sydney, Nova Scotia

A SYSTEM by which the dentist may control the visits of his patients is of great benefit to both the patient and the dentist. In the case of a desirable type of patient the value of the regular recall system should be discussed on completion of the first service rendered. Suggest that a reminder card be sent every six months, pointing out that there would be no follow-up in case the patient decided to consult some other dentist. If a patient returns, send the card again, twice at least, at the same six-months' intervals, and when you find the patient co-operating regularly, you may suggest to him that in future you will dispense with the card and merely call him by telephone instead. The psychological time to switch is when you feel that the patient is sold on the system. Patients may be questioned as to the most convenient times for a dental check-up and calls may be arranged accordingly.

When a patient delays for some months, or even a year, he will invariably mention having received the card but overlooked coming, and ask why you did not send a follow-up. It can then be pointed out that such a procedure might have been embarrassing had he changed to another dentist. The subject can be dropped then until the final appointment, when it could be mentioned that since it had been suggested and if he is really in earnest, you will be pleased, in his case, to follow up the regular six-months' card with a telephone call, say a month later. That type of patient will require the telephone call anyway, and then when he comes, suggest that perhaps this method is more effective in his case, and the card system could be dropped altogether. The accumulation of work which results when a patient slips up on his check-up is a telling argument for regular attention.

When treating children it is desirable to ask a parent to come with them for the final appointment, so that you may review the completed work, state how often the child should have a check-up and suggest calling them. Little tots will prefer to receive a card.

Never press the service on a patient. Services rendered must be of such a standard that they sell the recall system.

The dentist must make himself personally responsible for the smooth working of this system. While the nurse can and should handle routine matters, the dentist should make office contacts and prepare and supervise monthly lists. When a dentist dies, the practice dies, but when a nurse leaves, she should not take with her a lot of valuable information which the dentist cannot recover.

Various Systems

We prefer a chart system; a list made the first of the month from the records of the previous month. The nurse makes out cards for new patients and locates cards of old patients from an alphabetical index, where they are returned as notice is sent or telephone call made. All cards are then placed ahead in a box indexed for months—September to March, January to July, etc.—and so available when that month comes around. The current month cards are taken out, the notice

* Presented as a clinic before the Nova Scotia Dental Association and the Fall Clinic of the Montreal Dental Club.

RALPH R. DALGLEISH

cards sent or telephone calls made. The dates are then noted on cards which are subsequently returned to the alphabetical index. If the card is that of a patient who prefers a follow-up, the card is placed in the file for the following month. When an appointment is postponed for an indefinite period, due to some known reason, such as sickness, patient out of city, etc., the card is then placed in section indexed, "Held Up." These cards are checked over each month to pick out those which may have become active again.

We prefer a card which reads, "Dr. ———— reminds you that six months have elapsed since your last visit, and suggests that you make an early appointment for prophylactic treatment and examination. Phone 379."[1] For children, we like and they like a Mickey Mouse card sold by the American Dental Association. We do not like the idea of Christmas and Birthday cards for children.

The nurse must telephone the patient with the idea instilled in her mind that in case she does not make an appointment, she is always to terminate the call so that *she* is to call at a more convenient time. She should say, "Dr. ———'s office; this is your regular six-months' call. Could I give you (or are you interested in) an appointment?" If the patient does not want an appointment for a week, or month, she simply says, "Very well, thank you. I will call you again, later." If the patient insists that he will call back himself, the nurse's last effort is to say, "Very well, thank you—and if you should forget again, perhaps I should remind you of it later." Never leave the number for a patient to call; always say, "We will call later."

Never instruct a patient to "drop in about so and so." Always say your office will call. This applies to temporary fillings, root canal treatments, or anything that must be replaced or attended to in, say, a few weeks or months. We use an ordinary dated desk pad, and a word

1. Practice Building Suggestions by Ritter.

from the chair to the nurse in front of the patient: "Just mark Mr. ———— down for a call in about six weeks," is all that is necessary. If a patient inquires, "When shall I come back?" for a rebase, new denture, etc., the answer is always, "We will notify you."

When the pad is turned daily, see that anything noted is attended to on that day and not held over. Patients get dentistry-minded and often have a faculty of remembering when they were to be brought in.

For a patient without telephone service, we prefer a memorandum, to a staid formal letter. Memorandum: Dr. ———— to Mrs. Jones: Six months have elapsed since your temporary denture was made, and your mouth should now be ready for something more permanent — which we will be pleased to construct at your convenience. R.R.D. We use modifications of this form in different cases, but always keep strictly informal.

Remind business men and women of their appointments, if desired; but insist that children, (or their parents) having been given a card, be responsible for their own. Make no effort to hide the fact that a modest charge is made for a broken appointment, when the office is not notified. On your part, meet patients punctually, except in cases of emergency.

Patients under a recall system should be given preferred attention under all circumstances, get all preferences as to desirable appointments, and possibly be given some consideration in fees.

Always give prophylaxis at the first appointment, which has the advantage of permitting you to catch everything as you go along. End the treatment by actually using a new brush on the patient's mouth, and giving him a mirror to watch how it should be used (if you think necessary). If asked, "Why the brush?" reply, "At least one of four reasons: 1. You may not know what kind to buy. 2. You may not know how to use it—now you should. 3. You may not even own a brush—and if you do, 4. ten to one you need a new one."

For examinations use bitewings indiscriminately. They pay for themselves many times over, and patients like the idea.

Fees should vary covering examination and prophylaxis.

Advantages

While everything is in favour of this service, to both patient and dentist, one point to be noted as perhaps the greatest advantage to the dentist is the possibility of placing the work in desirable seasons. For instance, where there is a large country drop-in trade in summer, patients under this system can be brought in spring and fall. When a vacation is to be taken, say for a month, the cards can be gone over, and anything that looks urgent called and everything else held over.

In case of a vacation of some months or a lengthy illness, the nurse may telephone the entire monthly list on the first of each month to inquire if any attention is required before Doctor intends to return to practice. She may then make the actual appointments with patients' choice of dentists, for any emergency work required. The advantages of this procedure are apparent.

Disadvantages

There are positively no disadvantages, a conclusion arrived at after fourteen years' experience.

It is not the finding of a thing, but the making something out of it after it is found, that is really of consequence.—Elbert Hubbard.

Practice Management

Personality

GEORGE BERNARD SHAW has said that love is one man's exaggerated opinion of one woman. Success in medicine may be defined similarly. It stems from a community's exaggerated opinion of the knowledge and skill of one physician.

This exaggerated opinion is not a mythical thing. It brings patients back time and again and draws new ones. It is an outgrowth of that intangible factor, personality.

One doctor can be as able as another in his neighbourhood, perhaps even a little more so; but his office will be empty while his friend's will be crowded. Men and women will sing his friend's praises far and wide, even though he employs only the standard, tried, therapeutic methods.

How does he do it?

He does it by instilling confidence; by creating an atmosphere of friendliness and kindliness, a feeling that a patient is not just a case but a human being subject to the same frailties and temptations as himself. He doesn't high-hat his patient, snap at him, bombard him with big words. He talks to him simply, chiding him gently if that is necessary, and encouraging him tenderly if something serious has been discovered in his x-ray plate or microscopic slide. He makes sure not to overdo this solicitude, for that would be boorish. He shows only a natural interest, because he loves human beings for what they are and wishes them well.

Seldom is a physician chosen solely for his professional ability; because the patient can't adequately judge that ability. Nor are his fees usually the deciding factor; because the patient can't tell whether he is receiving maximum value for his money or not.

What really counts is the man's personality. Patients deal with doctors they like and in whom they therefore have confidence. It's as simple as that.—*Copyright article. Reproduced by permission of Medical Economics.*

Dental Assistant

WE OCCASIONALLY hear from the lips of some men in the profession, "When my practice gets bigger, and warrants it, I will *then* employ a nurse."

The error of this idea is that a practice cannot possibly grow effectively without the assistance of a capable person who is the envoy l'affaire of that office.

The dentist who has to leave a patient during the progress of a difficult root removal and answer the telephone is not operating to the advantage of the patient or himself. To try holding a celluloid strip over a synthetic restoration for three minutes while your door bell is ringing is most distracting.

The dentist who feels that he can successfully be surgeon, artist, mechanic, telephone operator, collector and typist is either labouring under an illusion or perhaps is just a classic example of pure, unadulterated genius!—*From The Dentist and His Control of Practice, by S. Joseph Bregstein.*

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM SASKATCHEWAN:

What is the best way to treat the condition commonly called erosion, usually found at the junction of the enamel and dentine?—*R. S. Rose, D.D.S., Eston.*

REPLY FROM QUEBEC:

I may say that although considerable research has been done on erosion, very little apparently is known about its real cause. Different teeth in the same mouth may be attacked in different ways and on different surfaces, although probably the most common type of erosion is found at the labio-gingival margins. The lingual, occlusal and occasionally the proximal surfaces are also affected. I have observed some upper bicuspids which had a deep groove all round the gingival margins.

Dr. Bodecker, who has made some very valuable contributions to this as well as other phases of dentistry, has suggested the use of a powder, composed as follows:

℞

Tartaric acid ..... 448 grams
Solution of gelatine, 10 per cent ..... 50 grams
Misce et ad
Precipitated phosphate of calcium,
Precipitated carbonate of calcium,
Basic carbonate of magnesium ..... āā 160 grams
M. sic and ad

Compound must be dried carefully and thoroughly; if overheated will turn gray. This, however, does not affect its efficiency.

Bicarbonate of sodium ..... 560 grams
Chloride of sodium ..... 160 grams
Flavour q.s.

White, effervescing, mineralizing anti-carieticum. One-tenth of the above quantity is sufficient for the use of a single patient for three months.

The method of using this powder is as follows: The very last thing at night, after the regular mouth toilet has been completed, a small quantity (equal to the amount which could be placed on a dime) is placed on the tongue and is worked around the surfaces of the teeth. Only the excess is then expectorated. This should be done shortly before going to sleep; conversation stimulates the flow of the saliva and thus dilutes the concentration of the dissolved powder.

The powder which remains, does appear in some cases to render the eroded surfaces much less sensitive. It is Dr. Bodecker's conviction, however, that this form of treatment is purely symptomatic and does not remove the underlying cause.

When the grooves are deep they should be filled. Porcelain inlays which are slightly concave are very valuable in anterior teeth, while in other teeth, gold inlays, gold foil fillings or occasionally amalgams, become a necessity. When a considerable portion of the labial surface on anterior teeth has been destroyed, porcelain jacket crowns should be used. Sometimes gold crowns or gold castings with porcelain fronts can be used successfully in posterior teeth. It is most

unfortunate that the condition is usually progressive and if a tooth is filled or has an inlay inserted, it is not at all uncommon to find in a few years that the erosion has started along the margins of the filling. I suggest making the fillings or inlays slightly concave mesio-distally in the hope that if the condition has been caused by some fluid, that the fluid will travel across the tooth through the concavity and be neutralized by the saliva, rather than to make the fillings convex which would deflect any fluid to the remaining labial surface.

Much valuable information can be obtained on this subject by writing to the Library Department of the Journal of the American Dental Association.—*J. S. Dohan, D.D.S., Montreal.*

REPLY FROM MANITOBA:

The toothbrush is the dominating factor in the production of most wastings, commonly referred to as abrasions or erosions. The chief, and more often the only factor concerned is the toothbrush in conjunction with tooth powder (Millar).

Teeth may be more readily abraded by the brush and dentifrice if they have been previously softened by an excessive use of extraoral acids, such as citrous fruit juices. Their exposure to other acid fruit juices, highly acid drugs, dentifrices or acid vapours may predispose them. In addition general wastings may be seen in teeth softened by an abnormality in oral secretions induced by some systemic disbalance.

Treatment

Change the type of brushing from long strokes and large circular ones to those of minimal length, i.e.; vibratory or small circular ones, with the bristles slightly tilted incisally. The brush is applied with but moderate pressure with the bristle aimed at the erosions. A fairly stiff brush is used but the bristles are rendered less stiff by first brushing the occlusal surface of the posterior teeth.

Erosions can be repaired most satisfactorily by means of fillings—gold foil, gold inlays, porcelain inlays and silicate cement. The golds may be used in the posterior teeth or where the wastings are covered by the lip and it is not conspicuous. Porcelain inlays and silicates are used in the anterior teeth for aesthetic reasons. The porcelain is more durable, not porous nor subject to discolouration and is more compatible with adjacent gingival tissue. Silicates require much less time to insert and there is a minimum destruction of tooth structure but they have many disadvantages.—*N. C. Carmichael, D.D.S., Winnipeg.*

REPLY FROM ONTARIO:

"Erosion," as defined by Dr. W. D. Miller, is a superficial chemical disintegration of tooth substance. Dr. G. V. Black, in describing "erosion" says in part, "The area of the eroded surface is always smooth and glossy. So long as any facet on the labial and buccal surfaces of the teeth is hard, smooth and glossy, it may be classified as erosion." No doubt that many men in practice have believed that those V-shaped areas extending transversely across the tooth were caused by faulty and vigorous brushing back and forward across the teeth using a gritty tooth paste or powder. Personally, I believe that such a procedure is at least partly the cause. If this contention is correct then some of these so-called erosions are the result of abrasion perhaps coupled with erosion.

The treatment I have employed depends on the amount of tooth structure lost. I believe the operator's judgment would decide whether a cavity should be cut and a filling inserted—my choice of filling is gold foil or gold inlay or porcelain inlay. If the tooth is sensitive to

brushing, sweet or acid food, and a filling not indicated, I would dry the area thoroughly and apply formalin with an orange-wood point in a burnishing manner; or if a molar tooth, I prefer a saturated solution of nitrate of silver applied similarly. Either the operative or the drug treatment is used principally to give the patient comfort but does not necessarily prevent in entirety further erosion. Whether or not abrasion from brushing is considered a cause of the condition, I would institute a proper method of brushing to be carried out twice daily, after breakfast in the morning and within an hour after food in the evening. Dr. A. J. McDonagh, Toronto, claims that a protective substance is secreted in the saliva soon after eating which should not be removed. If the teeth are brushed on retiring this protective substance would be removed by so doing.—*T. R. Marshall, D.D.S., Toronto.*

REPLY FROM ONTARIO:

The progress of erosion is in a lateral direction rather than towards the pulp, therefore, it is not recommended to restore erosion by permanent fillings until lateral progress is complete. Until that time, erosion may be treated for sensitivity in the molar region by silver nitrate precipitation and on the anterior teeth by formalin. This is done by walling off the tooth with cotton rolls, drying the eroded area and applying a small drop of formalin with an explorer, then by rubbing this formalin into the dentine with an orange wood stick. It is necessary to repeat this procedure two or three times.

A theory that erosion is caused by acid excretions from the gums might warrant as a protective measure the application of vaseline daily to the eroded surfaces.—*Douglas Tanner, D.D.S., B.Sc., (Dent.), Toronto.*

REPLY FROM BRITISH COLUMBIA:

The treatment of erosion, depends on how far the condition has progressed.

Sensitive, shallow services, in anterior teeth, may be treated with non-staining Sensitex; posteriors, with Howes Silver Nitrate treatment. Both cases require complete isolation from moisture.

If fillings are indicated, porcelain inlays, gold inlays or gold foil, are given preference.—*Frank P. Smith, D.D.S., Vancouver.*

REPLY FROM BRITISH COLUMBIA:

In my opinion a properly placed Class-5 gold foil operation or a Class-5 baked porcelain inlay will be far superior to any other method of treatment in the handling of the above problem.—*W. J. Gibson, D.M.D., Victoria.*

Quicksilver, or mercury, is the magic metal that has teased and tormented the alchemists for a thousand years. Without mercury, half the ointments in common use, and many of the antiseptics, would cease to be. Without it the dredges could collect no gold or silver. Without it your doctor couldn't take your blood-pressure. More important yet, without this magic metal, no soldier could fire a shell or explode a bomb. . . . .

Quicksilver belongs to the Arabian Nights' fairy tales. Wave a wand and it emerges from solid red rock in the form of colourless vapour. Catch it in dirty black soot and it pops out as silvery white liquid. Mix it with nitrate and it is the most powerful explosive known. As mercury bichloride it makes a poison so deadly that there is no antidote for it. Mix it with heat and it is the most efficient source of power yet discovered.—Frank J. Taylor in "Pearson's Magazine."

The Forum

• SULFANILAMIDE TREATMENT FOR OSTEOMYELITIS: SEQUESTRATION WITHOUT EXFOLIATION

by M. HILLEL FELDMAN, D.D.S. and S. J. TUREL, M.D., New York

THE CASE REPORT to be presented here is interesting because of the absence of the "throwing off" of bone sequestrums from the diseased area, and because of the complete uneventful recovery in which neither teeth nor bone substance were lost.

Report of Case

A man, aged 32, previously in good health, presented himself on May 6, 1938, with marked tenderness and swelling on the chin. The inflammatory area extended below into the submental region.

History—The patient gave a history of striking his chin a violent blow when bending to pick up a tool while at work, a month prior to our seeing him. During this period the patient had been under dental and medical care, but the dental aetiology of the pain was not suggested until the swelling suddenly appeared.

Roentgenographic Examinations—Roentgenograms revealed an osteoclastic process going on far below the incisor apices, with an erosion of the lower border of the mandible. An occlusal roentgenogram showed this breaking down at the lower border clearly, with a sequestrum of bone fractured off from the symphysis during the trauma a month previous to examination.

Treatment—Hot magnesium sulphate compresses were applied on the swelling for four days, when an incision was made under the chin to establish drainage. On May 23, the patient was hospitalized. The temperature had become elevated to a 102.5° F. by mouth. Prontylin (p-Aminophenyl-sulfanamide) in 7½ grain tablet doses by mouth was prescribed every three hours for the first three days, making a total of 50 grains taken per day. This was then cut down to 35 grains a day for three days; then 25 grains daily for seven days, and then discontinued. Within one week, the patient was discharged from the hospital for office attention over the next two months.

Course—Several roentgenograms were taken which indicated a breaking down and then a "building-up" without any exfoliation, until finally there was a complete regeneration. The patient had an uncomplicated convalescence without any loss of bone substance. The date of discharge from treatment was September 10, 1938.

Comments

1. Sulfanilamide, introduced by Domagk in 1935, was originally used as a specific chemotherapeutic agent in combating hemolytic streptococcal infections with striking results. Since that time the drug has been used with almost equal effect in colon bacillus infections of the genito-urinary tract, gonorrhea, meningococcus meningitis, undulant fever, pneumonia, chancroid and lymphgranuloma inguinale. Many encouraging reports are noted also in Ludwig's angina and miscellaneous types of cellulitis.

2. Great care should be taken in the administration of this drug, because of individual idiosyncrasies with the production of toxic symptoms, the most common being anorexia, lassitude, nausea, vomiting, dizziness, acidosis, skin rashes, secondary fever, and anemia. Cyanosis is almost

always present when the drug is given in large doses. These symptoms disappear when treatment is discontinued.

3. Treatment should be carried out under the supervision of a physician who must be constantly alert to the possible occurrence of rare but serious complications, such as agranulocytosis and acute hemolytic anemia. Blood counts and urinalyses are therefore taken frequently, as well as estimations of the concentrations of the drug in the blood, which should vary from 6 to 10 mg. per hundred cubic centimeters of blood.

4. No satisfactory explanation has yet been given for the mechanism of the effect of the drug. It may be given orally or parenterally, preferably orally.

730 *Fifth Avenue.*
50 *East Seventy-Fifth Street.*
—*Dental Digest, August,* 1939.

• PREVENTION OF CARIES

by ROBERT G. KESEL, M.S., D.D.S., Chicago, Illinois

(Excerpt from Bul. of Chi. D. Soc., June 2, 1939)

AT THE present time, there is no general agreement as to how caries may be prevented. Various substances, food elements and hygienic measures have their advocates. The consensus of opinion is that a well balanced diet, fortified with the vitamins and mineral elements and with the carbohydrate content restricted to the minimum required for the normal growth and activity of the individual, produces the best results.

• DENTAL PHYSICIANS' OATH

I SOLEMNLY promise in the name of the "Great Physician of the Universe," "Giver of Health," and "Creator of Healing":—

That in all my treatments I will strive for the benefit of my patients. (So far as lies in my power.)

That I will co-operate with the Medical Physician of my patient, knowing that "A healthy body is impossible without a healthy mouth" and a healthy mouth is impossible without a healthy body.

That I will regard my fellow dentists as brothers and will measure my actions toward them by the Golden Rule.

That I will demand a fair fee for honest service so that I may use trustworthy materials, properly equip my office and live respectably.

May I be granted the esteem of my fellow men if I am faithful to these promises.

(With apologies to Hippocrates.)
William G. S. McLennan, Mimico, Ont.

• THE STATUS OF THUMB-SUCKING AND FINGER-SUCKING

by LELAND R. JOHNSON, D.D.S., M.S.D., F.A.C.D., Chicago, Ill.

(Conclusion of paper in J.A.D.A.)

1. It is generally agreed that thumb-sucking or finger-sucking may be an aetiologic factor in malocclusion in either the deciduous or the permanent denture.

2. Of 989 cases of malocclusion, in 173 cases, or 17.49 per cent, there was a habit of sucking the thumb or the finger.

3. Of 153 thumb-suckers, seventy-eight, or 50.98 per cent, had Class I (Angle), seventy-three, or 47.7 per cent, Class II, and two, or 1.3 per cent, Class III.

4. Of those that sucked the thumb or fingers, in 24.28 per cent the habit persisted one year or less; 60 per cent had broken the habit by the end of the third year, and 10 per cent sucked the thumb ten years or longer.

5. Malocclusion of the deciduous dentition may correct itself after the thumb-sucking habit is broken if normal function of the lips exists. If normal function does not exist, in all probability the malocclusion will persist.

6. Prevention of the habit of thumb-sucking in infancy is advisable.

• LARGE ADAMANTINOMA

DR. R. N. van der Elst of Nijmegen, Holland, observed the above case of Adamantinoma in 1916 at Paré-Paré, on the island of Celebes in the Dutch East Indies where he was the military physician from 1914 to 1916. The woman was 54 years of age. The growth began on the left zygoma and the patient died two years after it started to proliferate.—*Dental Mag. and Oral Topics.*

• ORTHODONTICS

by JOHN W. COOKE, A.B., D.M.D., Boston, Mass.

(Excerpt from American Journal of Orthodontics and Oral Surgery.)

WHAT should be the public's attitude regarding the professional specialty? The refrigerator and the radio are honest products. Education is founded upon honest foundations. The ambitions of an organization of orthodontists are honest and legitimate ones. The aims of general dentists are understandable, logical, and for the mutual benefit of dentistry and the public. That is good; the first step has been made. You have the product. It is as good today as you can make it. When better orthodontics is made, orthodontists will make it. But what you do not have, what general dentistry does not have, in addition to the product, is a program. What should be the public's attitude? If other factors are right, and you believe that they are, the public's attitude concerning the professional specialty should be precisely what you wish it to be. How else can you explain the education of a child? If the child's response is not the expected one, then it is the fault of the parent.

A helpful thing to remember in calculating the public's response is this: If the project in education is one of some magnitude, such as orthodontic service, then you must remember that you and we are in competition with other factors which are crying for the portions of time, strength, and money which we seek to appropriate for the benefit of ourselves and our patients. Now in order to overcome the feeling on the part of your and my public that dental and orthodontic services are too expensive, we must make our arguments relative ones. Too expensive? More expensive than what? Less worth while than something else or more worth while than

other health services? When and where indicated? You are safe in ignoring those instances where orthodontic or dental service is accepted at its best as a matter of routine and at no sacrifice. You and I will get those cases anyway, and their numbers will not increase. But in the majority of instances, in those cases where the most human good can be accomplished, in those cases where over a lifetime of service the greatest permanent profit lies, the acceptance of your services will be selective. It will be instead of something else, rather than in addition to everything else.

This hypothesis implies a stern responsibility of education. As I have indicated, I believe that education should be twofold. I am convinced that you should join with the forces of general dentistry in telling an honest, simple, straightforward story of dental health to your public. I believe that the information so presented should not be technical, should be so simple as to seem almost childish to you. I believe that the efforts should be to direct patients up the stairs and through the doors into dental offices, by whatever legitimate and ethical means is opened to our combined specialties. Then, once the patient is there, once the door of the dental office is closed shutting out the outside world and leaving the patient with the dentist, the dentist who is alive to his responsibility must from then on accept the burden of education. He must either accept orthodontic service as a part of his professional curriculum or must have the good sense and the guiding wisdom to see that that patient requiring superior and special knowledge is referred to the proper hands.

Personally, I feel that better orthodontics will be done if it remains in the hands of specialists. On the other hand I feel that such orthodontics will be too limited numerically to be of importance socially. Also I feel that for general dentists to do a lot of orthodontics fairly well is better for the human race than for a few specialists to finish a few cases to a high degree of superlative perfection.

• DEEP INFECTIONS FOLLOWING THE INJECTION OF NOVOCAINE SOLUTIONS

by S. B. FONTAINE, D.D.S., F.A.C.D., Oakland
(*Summary of paper in Jour. of Cal. State D. Assoc.*)

1. The percentage of blood-borne and lymph-borne infections following the extraction of infected teeth is extremely low.

2. Deep infections following the injection of novocaine has been established as a clinical entity.

3. The infection may be due to a contaminated hypodermic needle or it may be secondary to the tissue reaction which follows the use of highly acid novocaine solutions.

4. Care must be exercised not to touch the gums, teeth or tongue with the hypodermic needle when making injections in the mouth, thereby preventing needle contamination.

5. Never inject a local anaesthetic into nor pass a needle through infected tissues, to inject elsewhere.

6. Novocaine solutions which have a pH below pH 6 should not be used, as they are irritating to the tissues and serious tissue reactions make a nidus favourable for infections.

7. A patient who has an abscess in the zygomatic fossa or in the pterygo-mandibular fossa is a seriously ill patient and should be treated accordingly.

Changing places with another is always an amusing speculation, and foolish people attempt to appraise the relative positions of two people by their wealth, health or possessions, whereas the sole possible criterion is peace of soul.—Viscount Castlerosse.

PRINCE EDWARD ISLAND

Editor—M. H. GARVIN, Winnipeg

SASKATCHEWAN

A S S O C I A T E E D I T O R S

D. T. Waye, Charlottetown

QUEBEC

ONTARIO

F. C. Harwood, Moose Jaw

NOVA SCOTIA

ALBERTA

E. M. Laurin, Montreal

T. R. Marshall, Toronto

S. G. Ritchie, Halifax

John Clay, Calgary

MANITOBA

NEW BRUNSWICK

BRITISH COLUMBIA

J. F. Morrison, Winnipeg

J. F. Edgecombe, Saint John

J. S. Bricker, Vancouver

Canadian Dental Corps

There was no Canadian Dental Corps in existence when Canada entered World War No. 1, and before one could be organized many soldiers had proceeded overseas. The only dental service received by these men was rendered by dentists in private practice who gladly gave of their time to make Canada's representatives at the Front dentally fit. As the war progressed a dental corps was finally formed, the members of which did some splendid work, in the interests of health, for the Canadian Army.

It became evident from the experience gained that the Dental Corps should be reorganized, but progress was slow. Eventually the Canadian Dental Assoc. decided to grapple with this important problem and through the efforts of a very capable committee headed by Dr. Frank M. Lott, now Colonel Lott, succeeded in working out a plan of organization which was most complete and satisfactory from the dental standpoint. This reorganization plan had been submitted to the authorities in Ottawa, but had not been agreed upon when World War No. 2 commenced. This, of course, hastened action by the Federal Government and the plan of the Canadian Dental Assoc. for the new Dental Corps was accepted and put into operation. We now feel that we have the framework for one of the finest Dental Corps in the world.

Lieut.-Colonel F. M. Lott was made Director of Dental Services for

Canada and as a result of his splendid and most efficient efforts in organizing the Corps has been made a Colonel. It goes without saying that Colonel Lott has the most loyal and sympathetic support of the dentists of Canada and under his direction we can be assured of a Dental Corps of which we can all be proud.

The success of the Corps has been made doubly certain by the wise choice of District Dental Officers throughout the various districts of Canada. It is not an easy matter to promptly make soldiers of dentists who have had no previous military training but under the present capable leadership these difficulties will be speedily overcome.

In order that we may all become better acquainted with those selected to direct our destiny in the Corps, we are herewith publishing a biographical sketch of each District Dental Officer together with his photograph. Colonel Lott's picture appears as the frontispiece in this issue of the Journal. He enlisted as a lieutenant in the 1st Divisional Signal Company in 1916 and after the signing of the Armistice was discharged in 1919. He was graduated from the Royal College of Dental Surgeons of Ontario in 1923, entering private practice in Detroit and Sarnia and continuing until 1928 when he joined the Faculty of Dentistry, Univ. of Toronto. He began research in the use of glass as a denture base in 1927 and succeeded in producing a suitable product, and developing a technique for using the same, in 1937. Col. Lott was always an ardent student and a brilliant organizer. He is a member of the American Society of Dental Prosthetists, Ontario Dental Association and Toronto Academy of Dentistry. His chief hobbies are photography, cabinet making and fishing. He is married and has one son and one daughter.

Major John Franklin Blair, D.S.O., D.D.S., of London, Ontario, District Dental Officer of M.D. No. 1. He was graduated from the R.C.D.S. of Ontario in 1908. For some years he practised in Winnipeg and Southern Saskatchewan. In 1915 he went overseas as Dental Officer with the Fourth Field Ambulance, attached to the Second Division and remained in France until December, 1918, at which time he went to Germany. Later he returned to England and was Senior Dental Officer at Bramshott and Ripon and later A.D.D.S. for the Seaford area. He received his majority in March 1917 and was mentioned in despatches. He was awarded the D.S.O. in 1918 and was decorated by King George V at Buckingham Palace. He returned to London, Ontario, in 1919. He is Past President of the London Dental Society, a member of the C.D.C. Committee of the C.D.A. and has always taken an active interest in organized dentistry.

He is unmarried, an Anglican, a member of Highland Golf Club and an enthusiastic angler.

Major Harvey George Bean, D.D.S., of Toronto, Ontario, District Dental Officer of M.D. No. 2. He entered the Dental School, Toronto, 1914 and in 1916 enlisted as a private in "Canadian Buffs," transferring later to the Dental Corps. He served in England until Dec. 1917 when he was sent home to complete his dental course, graduating in 1919. He was associated with the staff of the Dental School, Toronto, for four years commencing 1921. He began the practice of orthodontia as a specialty in his own office in 1922, having been previously associated with Dr. George Grieve.

Major Bean is a member of the American Assoc. of Orthodontists, Toronto Academy of Dentistry, Southern Society of Orthodontists, American Board of Orthodontists, Granite Club of Toronto and a life member of the Ontario Dental Assoc. and also the Art Gallery, Toronto.

He was a Lieutenant with the C.A.S.C. until 1925. In 1928 he was transferred to the C.A.D.C. He succeeded Lt.-Col. Trelford as D.D.O. of M.D. No. 2.

He is married and has two sons and one daughter.

Lieut.-Colonel John C. W. Broom, E.D., D.D.S., of Kingston, Ontario, District Dental Officer of M.D. No. 3. He was matriculated at Glasgow University, Scotland, and attended Anderson's College Medical School for two years before coming to Canada. He was graduated in dentistry from the Univ. of Toronto, 1917.

Lt.-Col. Broom served in the C.A.D.C. in Canada and England, 1917-1921. Since the Great War he has been in the N.P.A.M. as O.C. No. 3 Detachment C.A.D.C. and is President of the Combined Officers' Mess, Kingston.

He practised dentistry in Kingston from 1921 until 1939 when he was appointed as D.D.O., M.D. No. 3. He is Past President of the Kingston Dental Assoc. and the Eastern Ontario Dental Assoc. and has served on the Board of the Ontario Dental Assoc. He is visiting Dental Surgeon on the Staff of the Kingston General Hospital, and is also on the Medical Staff of Queen's University.

He is active in sports, particularly sailing, badminton and golf. He is Vice-President of the Cataraqui Golf and Country Club and a charter member of the Kingston Flying Club.

Major F. W. Saunders, D.D.S., L.D.S., F.I.C.A., of Montreal, Quebec, District Dental Officer of M.D. No. 4. On August 7, 1914, he interrupted his undergraduate course in dentistry and enlisted for active service, proceeding overseas immediately. On his return he re-entered McGill where he was graduated in dentistry.

Major Saunders published the first work on intravenous anaesthesia in dental surgery on this continent, and has made other significant contributions to the literature of dentistry.

For the past ten years he has been Dental Surgeon-in-Chief of the Royal Victoria Hospital. He is a member of the following: the teaching staff of the Department of Oral Surgery on the Faculty of Dentistry of McGill University; Board of Governors of the College of Dental Surgeons of the Province of Quebec; and the Board of Management of the Junior Red Cross. He is consultant to a group of insurance companies, on dental problems. In 1935 he was president of the Montreal Dental Club.

Major Saunders is a Rotarian, a Mason and a golfer with a handicap of seven.

Lieut.-Col. J. W. Rooney, E.D., D.D.S., of Quebec, Province of Quebec, District Dental Officer of M.D. No. 5. He was graduated in dentistry from McGill University in 1918. From 1914-1918 he was a member of the McGill Senior Hockey Club and for the latter two years was Captain and President of the Club. He was President of McGill University Dental Undergraduates, 1917-1918.

He was a member of the Quebec Hockey Club, Stanley Cup holder 1911-1912, also 1912-1913.

Lieut-Col. Rooney was President of the St. Patrick's Badminton Club 1938-1939 and President of the St. Patrick Social and Welfare Council 1937-1939.

Major C. H. B. Climo, D.C.M., D.D.S., of Halifax, Nova Scotia, District Dental Officer of M.D. 6. He enlisted January, 1916, for service in the World War and went to France with the 3rd Division Field Artillery, where he remained until severely wounded in 1918. He joined the 18th Halifax Coast Brigade in 1922 and has served continuously to date. He was called up for service with the Coast Brigade last August and was O.C. of one of the batteries. His decorations include the D.C.M., and the Victory, Service, Coronation and Efficiency medals.

Major Climo was graduated from Dalhousie University in 1923 and practised in Halifax until his transfer to the C.D.C. as O.C. of the District.

He is a member of the Waegwoltic Club, the Red Cap Snow Shoeing Club and the R. N. S. Yacht Squadron.

He is a Past President of the Nova Scotia Dental Association, and Secretary-registrar of the N.S. Dental Board.

Major John F. Edgecombe, D.D.S., of St. John, New Brunswick, District Dental Officer of M.D. No. 7. He was born in Fredericton, New Brunswick, and in 1916 enlisted in the Artillery of the Canadian Army. From September 1917 to April 1919 he was a gunner in France with the 43rd Field Battery, C.F.A. He was second in command of the 3rd New Brunswick Coast Brigade, Royal Canadian Artillery, when transferred to the Dental Corps.

Major Edgecombe is Past President of the New Brunswick Dental Society and the Saint John Dental Society. He was also representative for New Brunswick on the Canadian Dental Hygiene Council and until entering active service in the Dental Corps was Associate Editor for New Brunswick of the Journal of the Canadian Dental Association. His hobbies are gadgets.

Lieut.-Colonel W. W. Wright, D.D.S., of Winnipeg, Manitoba, District Dental Officer of M.D. No. 10. He studied dentistry at Northwestern University being class poet, and was graduated in 1906.

In October 1914 he joined the Fort Garry Horse as a private and in November, 1915, was appointed a lieutenant in charge of dental services M.D. No. 10. Later he was promoted to Captain, Major and Lieut.-Colonel. In 1918 he reverted to Captain in order to proceed overseas. On return to Canada he was again made Lt.-Col. and remained in the reserve until the present war.

Lt.-Col. Wright is Past President of the Winnipeg Dental Society and Manitoba Dental Assoc.; Chairman of First Educational Committee, M.D.A.; Chairman of Manitoba Public Dental Health Committee; Examiner in Anatomy and formerly in Prosthetic Dentistry for Man. D. Assoc.

He is a member of the Scottish Rite and Kiwanis Club (Past Vice-president); officer and Sunday School teacher in United Church; fond of hunting, fishing, chess and bridge. He is married and has two daughters.

Captain Ernest Fraser Allen, D.D.S., L.D.S., of Vancouver, British Columbia, District Dental Officer of M.D. No. 11. While studying dentistry in Toronto he enlisted with the 5th University P.P.C.L.I. Reinforcements, Nov. 1915, and saw service in France.

Captain Allen was graduated from the Faculty of Dentistry, Univ. of Toronto, in 1923 and commenced practice in Vancouver. He is a Past President of the Vancouver Dental Society and the British Columbia Dental Assoc., and was Treasurer of the 5th Pacific Coast Dental Conference, an organization of over 6,000 members, in which position he showed outstanding ability. He was the dental representative of the Workmen's Compensation Board, an active member of the outdoor clinic of the General Hospital, and a member of the Board of Directors of the Quilchina Golf Club, all of which has fitted him for his present appointment.

To all he is Fraser, a keen golfer with a handicap of 8, and living in B.C., a keen fisherman and huntsman. He is married and has one son.

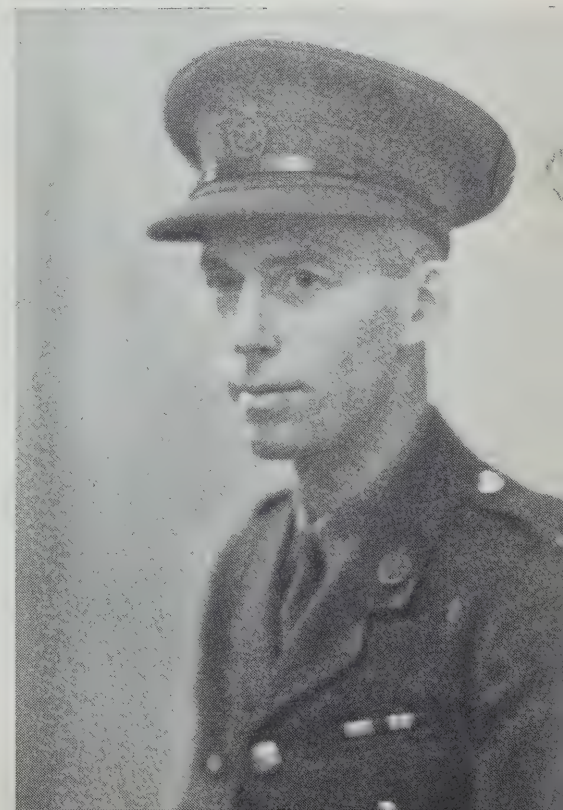
Lieut.-Col. George Lynch Cameron, D.S.O., V.D., D.D.S., M.D.S., L.D.S., of Swift Current, Saskatchewan, District Dental Officer of M.D. No. 12. He was Alderman of the City of Swift Current 1909-1914; Chairman of the Public and Collegiate School Boards 1926-36; Member of the Educational Council of Sask. since 1914; Member of the Senate, University of Sask. since 1939; Grand Master of I.O.O.F. Sask. 1916-1917 (in absentia); President of Swift Current Rotary Club 1932-1933.

He has served as President of Swift Current Dental Society, College of Dental Surgeons of the Prov. of Sask., Western Canada Dental Society, Canadian Dental Assoc. and Hospital Board of Swift Current.

Col. Cameron served in France during the World War, was wounded in action in April, 1918, was mentioned in despatches and was awarded the Distinguished Service Order in 1918. He was awarded the V.D. in 1935.

He is a Mason, a Presbyterian, and his hobbies are shooting, curling, golf, education and soldering.

He is married and has one daughter and three sons.



Major Lorne Janes, D.D.S., of Edmonton Alberta, District Dental Officer of M.D. No. 13 with headquarters at Calgary. He was born in Watford, Ontario, and in 1908 joined the Merchants Bank, serving at Watford and Alveston, Ontario; Vancouver, B.C.; Calgary, Acme and Manson, Alberta. He resigned to study dentistry. He was graduated from the Royal College of Dental Surgeons of Ontario in 1914 and went to Edmonton to practice. He enlisted in the Canadian Army Dental Corps in 1915 and went overseas in 1916, serving in England and France. He returned to Edmonton in 1919, to continue practice, becoming an expert in porcelain work.

Major Janes is Past President of the Edmonton Dental Society, the Alberta Dental Association and the Edmonton Gyro Club and is still a member of the Board of the Alberta Dental Association. Golfing is his chief pastime.

Major and Mrs. Janes have twin sons, 17 years of age and one daughter, aged 11.

—*Photo by D. V. Monk*

Major Dwight S. Coons, of Hamilton, Ontario, now of Ottawa, is Staff Officer of Dental Services (Air). In 1915 he enlisted as a private in the 173rd Highlanders but was transferred to the 54th Battalion in France. He received his commission in 1918 and was awarded the Military Medal while serving in France. He remained active in the militia after 1918 with the Argyle and Sutherland Highlanders, of Hamilton. He was transferred to the Canadian Dental Corps in November, 1939, and was appointed to his present duty with rank of Major.

Major Coons was graduated in dentistry in 1923 and located in private practice in Hamilton. He is a Past President of the Hamilton Dental Society.

He is married and has two daughters and one son.

Dental Achievement

Members of the dental profession from many countries will convene at Baltimore on March 18, 19 and 20, to commemorate the one hundred years of the advancement of dentistry and pay tribute to the founders of Dental Education, Dental Literature and Dental Organization, to review this period of progress and to prepare for a still greater and more glorious service to mankind.

Canada will be represented and will co-operate in every way possible to make a great success of a meeting which promises to be the most interesting and instructive in the history of the profession. We, in Canada, however, will commemorate this hundredth anniversary at the end of May. The Canadian Dental Association will meet with the Ontario Dental Association, and on May 27 will hold a Dental Centenary Luncheon. On this same day official dinners will be held in many centres throughout our Dominion.

The Public Relations Committee of the Canadian Dental Association has been working most efficiently in planning this program and we can count on a celebration worthy of this unique occasion. The Committee would urge all those who have any information about any outstanding achievements of our pioneer dentists to forward the same immediately to the Chairman, Dr. John S. Lapp, 1 Bellefair Avenue, Toronto, Ontario.

CORRESPONDENCE

Excerpt from letter to Dr. Edmund A. Grant, Toronto, from Dr. Ashley W. Lindsay, Dean of the Dental Faculty of West China Union University, Chengtu, Szechwan.

"All of the Hygiene and Public Health Bureaus of the different Provinces publish some kind of oral hygiene literature along with the general health literature, but nothing has been especially prepared for any of the different groups of society.

"This year our College has been granted two Oral Hygiene and Public Health fellowships by the Provincial Bureau of Education. We have given these to two of our graduates, one of whom was working in the Health Administration of Greater Shanghai before the war. The fellowships are for a two-year period. The first year we require the students to attend courses in the biological sciences and in hygiene and public health, both medical and dental. Also, they are required to work out and prepare stickers and posters and small leaflets. In addition we are preparing a small booklet for the use of teachers in junior schools.

"The present Commissioner of Education is quite keen on the health program, and I believe that if we satisfy him with the work which we are doing this year, we will have a much larger grant next year, and we may have the beginning of a regular department with Government support."

November 11, 1939.

(*Signed*) ASHLEY W. LINDSAY.

BOOK REVIEWS

Canada 1940. The Official Handbook of Present Conditions and Recent Progress in Canada. Published by the Dominion Bureau of Statistics. Application should be addressed to the King's Printer, Government Printing Bureau, Ottawa, Canada. Price 25 cents.

The book is prepared as a popular description of current conditions in the Dominion. There appears as frontispiece matter a beautiful full-page picture, in colour, of the King and also one of the Queen, together with several other fine pictures of the Royal Visit. Special reference is made to Canada's War Program, the Western Oil Situation and the Constitution and Government of Canada. All phases of the country's economic organization are dealt with and statistics are brought up to the latest possible moment. The text is accompanied by a wealth of illustrative matter which adds much to the general interest. The selling price merely covers the cost of paper and actual press work. This is a book which should find its way into the hands of every dentist in Canada. Order before the limited supply is exhausted.—*M. H. G.*

Congenital Cleft Lip, Cleft Palate and Associated Nasal Deformities by Harold Stearns Vaughan, M.D., D.D.S., F.A.C.S., Professor of Clinical Surgery, New York Post-Graduate Medical School, Columbia University; Fellow of the American Association of Oral and Plastic Surgeons. Octavo, 218 pages, illustrated with 259 engravings. Published 1940 by Lea and Febiger, Washington Square, Philadelphia. Cloth $4.00, net.

This work presents an evaluation of the various methods for the surgical treatment of congenital cleft lip and cleft palate. The text points the way to complete closure. The author has aimed to produce a book of practical value to the general surgeon, to the pediatric surgeon and to the specialist in plastic and reconstructive surgery.

There is a chapter, also, by L. J. Porter, D.D.S., of New York, on Orthodontia Appliance Types and Case Histories, and a chapter by John J. Fitz-Gibbon, D.D.S., of Holyoke, Mass., on Prosthodontia in Relation to Cleft Lip and Cleft Palate, including Case Histories.—*M. H. G.*

Root Canal Therapy By Louis I. Grossman, D.D.S., Dr. med. dent., Philadelphia. Octavo, 237 pages, illustrated with 90 engravings. Published 1940 by Lea and Febiger, Washington Square, Philadelphia, Pa. Cloth, $4.00 net.

In this book the author has pointed the way to successful root canal therapy. He discusses fully the selection of root canal cases for treatment and electro-sterilization (ionization). Detailed instructions are given for making bacteriological examination of pulpless teeth. He describes also the filling of root canals by the silver point method.

Now that dentists and physicians as well as the public are beginning to realize that extraction is not the solution for many problems, the need for the intelligent practice of root canal therapy is evident. This book should prove helpful in the study of this subject.—*M. H. G.*

DENTAL CORPS NEWS

The Civilian Dentist and The Non-Permanent Active Militia

This article has been written in answer to numerous enquiries regarding the exact relation of the Non-Permanent Active Militia to the Canadian Active Service Force as applied to the Canadian Dental Corps.

The Canadian Dental Corps, Non-Permanent Active Militia is, as might be judged by its name, a peace-time organization with a very definite establishment. In this organization any dental graduate licensed to practise in one of the provinces of Canada is eligible to accept an appointment where a vacancy exists.

In all other services, except the Medical, the first appointment is as a Provisional Lieutenant; in the Dental and Medical Corps, however, the first appointment is with the rank of Lieutenant.

After his appointment as Lieutenant, the officer, in order to qualify as a Captain, will be required over a period of two years to attend evening parades, follow a course of study, write the necessary examinations, and perhaps attend summer camps. The contents of the course of study referred to appeared in the columns of the Journal of the Canadian Dental Association in December 1939.

During wartime the N.P.A.M. is being made to serve a somewhat different purpose. Appointments are made in the same manner, but instead of permitting the limited number of appointments required to complete the establishment, the list is thrown open to include any number of applicants whose applications are recommended by the District Dental Officer. It might be noted here that the acceptance of an appointment is the only avenue by which an Officer's Course can be made available outside of the C.O.T.C.

If the officer remains in civil life the conditions laid down for peace time still apply and he will still have to serve for two years to obtain his Captaincy. In times like these, however, Officers' Courses are numerous and a newly appointed Lieutenant may enroll in one at almost any time. Upon the satisfactory completion of it he will be qualified as a Captain.

This has a very decided effect on the conditions under which he may then enter the C.A.S.F. Being already qualified for a Captaincy, he can be promoted to this rank at any time. In other words, it presents an avenue by which a dentist can prepare himself for military life while still in practice and reduce, or altogether eliminate, the time that he may be required to serve as a Lieutenant before his promotion to the rank of Captain.

COLONEL F. M. LOTT.

"All men are equal."
"Yes—but it's what they're equal to that makes the difference."—Medley.

NEWS FROM THE PROVINCES

QUEBEC:

Montreal Dental Club Holds Annual Meeting

On December 18 at the Atwater Badminton Club the Montreal Dental Club held its annual meeting with the President, Dr. Campbell Morris, in the chair.

A resolution was passed permitting all the members of the Canadian Dental Corps a free membership until the end of hostilities. Two members who have been in the practice of dentistry for forty years were elected honorary members. They were Drs. Jacob Rubin and Fred Wilkinson.

The Treasurer's report showed a substantial surplus for the year 1938-1939. It was announced that the annual Fall Clinic would take place next year as usual. Capt. Rodger MacMahon made a few remarks with reference to the exhibitors who come year after year to these clinics and emphasized that these companies should be encouraged by the purchasing of their goods. Dean Arthur Walsh announced that there was a fine dental library included in the McGill medical library and he urged the members of the Club to make use of this splendid collection of dental books.

Dr. Dan Macdonald, Chairman of the black list or the bad debtors list, said that only fourteen lists had been turned in to the Secretary and as he was not getting any or little co-operation he moved that the whole business be discontinued.

Lieut. L. Kent was elected President of the Montreal Dental Club for the ensuing year.

Dental Nurses and Assistants

On January 9 the members of the Montreal Dental Nurses' and Assistants' Association met in their Club Rooms, Medical Arts Building. Following a short business meeting, Miss Lillian Fincher introduced Mr. R. Walker, of the Burroughs Welcome Company, who gave a very interesting talk on "Dental Weapons of Interest."

On January 23 the members were invited on a "Tour of the Plant" of Charles E. Frosst Company. Refreshments were served, and on behalf of the Association Miss Lillian Fincher thanked the Company for a most enjoyable evening.

BRITISH COLUMBIA:

Vancouver Dental Society

Captain E. Fraser Allen, D.D.O., No. 11, was guest of the Vancouver Dental Society at its February meeting and gave a clear resumé of the activities of the Dental Corps.

The guest clinician was Claude A. Moore, D.D.S., F.A.C.D., Lexington, Miss. Dr. Moore gave a very comprehensive clinic in the afternoon in the nature of a symposium, giving many helpful suggestions and formulas related to every branch of dentistry. He paid particular attention to the prevention and care of dry sockets. During the evening session he stressed Dr. Claude C. Cannon's amalgam technique, also Dr. Clarence Simpson's x-ray procedures. Several other subjects were also discussed. Dr. Moore is a real southern gentleman, doing a wonderful educational work for the advancement of the dental profession. Along with his great number of stories, a most profitable and enjoyable evening was spent. Dr. Moore is returning home through the Canadian Rockies and will visit several of the prairie cities.

Several of the men from Victoria and Vancouver attended the Mid-Winter Clinic of the Seattle and District Dental Society.

ALBERTA:

Clinics at Calgary and Edmonton

Dr. Claude A. Moore, of Lexington, Miss., gave very fine clinics to the dentists of Calgary and surrounding districts on February 8, at the Palliser Hotel. The following day at the Macdonald Hotel in Edmonton, a similar clinic was presented.

The subjects included "Claude Cannon's Amalgam Technique," "Removal of Teeth, Dry Sockets and Practical Dentistry," and a display of Advanced Radiodontic Interpretation, with illustrative films.

SASKATCHEWAN:

Son of Lt-Col. Cameron Honoured

The Rhodes Scholarship Selection Committee has recently announced the selection of Douglas Cameron, of Swirt Current, as the 1940 Rhodes Scholar-elect for Saskatchewan. Mr. Cameron has had a distinguished scholas-

tic career in arts and science and in the earlier years of medicine in the University of Saskatchewan, and is now completing his medical course in McGill University. At both Universities he has been prominent in athletics and extra-curricular activities, and the selection of Mr. Cameron as Rhodes Scholar is very popular with those who know him. He is the son of Lt.-Col. and Mrs. George L. Cameron, to whom the "Journal" extends hearty congratulations on the honour accorded to their brilliant son.

Saskatoon Dental Society

At the September meeting of the above Society plans were considered for the next meeting of the Saskatchewan Dental Association, to whom the Society is to be host this year. It was decided to hold the Convention at Waskesiew in the Prince Albert National Park, June 23-25.

At the October meeting Dr. Spencer, who is in charge of the Provincial Cancer Clinic at the Saskatoon General Hospital, gave an interesting and informative talk on malignant lesions in the mouth.

During the November and December meetings matters relating to contracts between dentists and municipal or corporate bodies were thoroughly discussed. The Dental Council of the Province was asked to make certain recommendations to the Provincial Department of Health in this connection.

At the first meeting of the present year Dr. Claude Moore, a visiting dentist from Lexington, Miss., gave a very fine clinic on Exodontia, Amalgam Restorations and X-ray Interpretation.

MANITOBA:

Winnipeg Dental Society

The members of the Winnipeg Dental Society have had several opportunities of improving their impression technique. Many have learned how to eliminate the "Floaters" and insert dentures which will stay "put"; but when our dentures are inserted after the most painstaking care they don't always occlude.

At the February meeting we learned how to eliminate the possibility of their not occluding. Dr. F. S. Meyer, of Minneapolis, told us why they don't occlude and even when they do why they have a masticating efficiency that is somewhere near zero.

The interest in Dr. Meyer's technique was so great that meetings were held morning, afternoon and evening. Most of those who listened now believe they have learned how to replace lost organs of mastication with substitutes which will restore lost function to a degree hitherto unattained by most of us. One would feel inclined to again remind non-members of the Winnipeg Dental Society that they are missing opportunities for improvement which would help to keep them in the front ranks of their profession.

ONTARIO:

Dental Centenary Exhibit
Faculty of Dentistry, University of Toronto
Baltimore, U.S.A.
March 18 to 20, 1940

The exhibit of the Faculty of Dentistry, University of Toronto, prepared for the Dental Centenary meeting in Baltimore, March 18-20, presents the scope of the field of the dental profession, from the basic raw materials and dental education to the services rendered by it to humanity.

In the foreground of the Exhibit are displayed a series of raw materials essential in the manufacture of the refined dental supplies used by the dental profession. They include the ores of copper, nickel, gold, silver, gypsum, asbestos, zinc, feldspar, molybdenum, chromium and cobalt, all of which are available in large quantities from Canada's rich natural resources.

The centre of the exhibit will portray the University in general in which the Dental Faculty is an integral part. Within the Dental Faculty the use of the products of research on the ores represented in the foreground (namely, the refined materials) and the fundamental biological principles are taught to the dental students. The students subjected to this teaching and instruction become the scientific, ethical, professional dentists who carry to the public a dental service.

The background of the Exhibit illustrates by means of enlarged photographs the various fields where dental services are rendered by the dentist. These fields include Canada's out-

posts in the Arctic as depicted in Aklavik, N.W.T.; isolated rural districts by means of the rail car and Red Cross car; Public schools and Hospital services; private practice; public dental health programmes; industrial clinics and the Canadian Dental Corps.

The Committee of the Faculty of Dentistry, University of Toronto, in charge of the exhibit follow:—Dr. F. C. Conboy, Dr. I. H. Ante, Dr. T. Cowling, Dr. R. J. Godfrey, Dr. F. Martin.

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Banquet to Colonel F. M. Lott

On Saturday evening, March 2, the Faculty of Dentistry staff sponsored a complimentary dinner in honour of Colonel F. M. Lott, Director of Dental Services and Officer administering the Canadian Dental Corps. Dean Mason acted as toastmaster to a gathering of over two hundred fellow officers and colleagues in the dental profession as they gathered around the banquet table in the Royal York Hotel, Toronto. The Honourable Dr. H. J. Cody, President of the University of Toronto, was guest speaker and he delivered a very fine address in keeping with the occasion. He congratulated Col. Lott on his appointment to the high and responsible office he holds and at the same time commended those in high military command for the excellence of their choice.

Dr. Thos. Cowling presented Col. Lott to those gathered to do him honour in a glowing eulogy, following which Col. Lott, in his characteristic easy and humble manner, spoke of the accomplishments of the Canadian Dental Corps since its inception September 1, 1939. Colonel Lott, at the conclusion of his address, received a fine ovation from his friends and colleagues. President Stephen A. Moore of the Canadian Dental Association came to Toronto from London for the occasion.

•

Toronto Academy of Dentistry

The evening of February 7 was Past Presidents' night in the Toronto Academy of Dentistry. Dr. Harold Hoag, immediate Past President, was duly initiated into the honoured circle. Dr. Sydney Woollatt acted as chairman of the meeting. Each Past President attending was presented with a jewel to be known as the Past President's Jewel.

Dr. Karl Knapp, of New York City, gave three clinics in the afternoon using hydrocolloid as an impression material for inlays. In the evening Dr. Knapp discussed abutment preparations for fixed bridge appliances.

Major Dwight Coons, Staff Officer of Dental Services (Air), brought a Canadian Corps unit of dental equipment, which he set up before the members of the association. The completeness of the entire assembly together with the compact arrangement when packed drew much favourable comment.

Major Coons attributed credit for the design and supervision of this equipment to the genius of Col. F. M. Lott and gave great praise to the Canadian Dental Trades Association for their help and co-operation.

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Toronto Ladies' Auxiliary

On Saturday afternoon, February 10, the executive of the Ladies' Auxiliary to the Academy of Dentistry and the Canadian Army Dental Corps held open house, at the new Dental Corps Hut at Exhibition Camp, Toronto. Members of the profession and their wives were guests and numbered about three hundred.

Major and Mrs. Harvey Bean received, assisted by Mrs. W. G. Trelford and Dr. and Mrs. Leo Schumacher.

Refreshments were served by the executive of the auxiliary.

The Ladies' Auxiliary to the Academy of Dentistry and the Canadian Army Dental Corps held a mixed bridge on Friday evening, March 1, at Sherbourne House, the proceeds of which will be used to further the work of the auxiliary in connection with the Dental Corps.

Mrs. C. L. Eaton and Mrs. C. A. Snell were in charge of the arrangements and had as their committee: Mrs. J. E. Trelford, Mrs. W. R. Hendry, Mrs. Ross Thomas, Mrs. E. C. Veitch, Mrs. L. M. Grose, Mrs. Edgar Paul, Mrs. R. S. Woollatt and Mrs. Emerson McNeill.

About two hundred guests attended and were received by Dr. and Mrs. Leo. Schumacher, Dr. and Mrs. C. Alvin Snell and Dr. and Mrs. C. L. Eaton.

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Dental Health Education

The Ontario Public Dental Health Committee are having a busy season. Dentists from

all over Ontario have sent in requests for educational material to assist them with dental health addresses. On March 1, over 210 dental health lectures have been given in various places in Ontario covering a total audience of over 13,000 people and the figures are increasing daily. This phase of the committee's work is being advanced as quickly as possible; new coloured slides are being prepared, three new motion pictures have been purchased, a Dental Health Speakers Club has been formed in Toronto under the chairmanship of Dr. Ken Shultis, with Dr. Margaret Cowan as secretary.

Too much credit and praise cannot be extended to Dr. A. E. Higgins for his energetic promotion of dental health education. It is evident from the response of so many dentists throughout the province that the work of his committee is much appreciated.

■

Public Dental Health

A dental survey of the public school children in Brampton, Ontario, was held in February. Here are a few highlights as reported in the Toronto Telegram:—95 per cent of all children had dental defects—35 per cent of all children apparently had no dental attention whatever.

One dentist made this observation:

"It seemed that the children who looked bright and healthy had the best teeth while paler boys and girls usually had more defects. Which condition was the result of the other might be hard to say but it would appear probable that the children whose teeth were not in good health would not have as good digestion and would not derive as much benefit from his or her food as the child whose teeth were healthy."

This survey was conducted in Brampton under the auspices of the Better Dental Health programme. Dr. R. D. Thornton, Toronto, is the secretary.

■

Hamilton Dental Society

Dr. Karl Knapp, of New York City, addressed the Hamilton Dental Society on February 6. He presented a discussion of fixed bridge appliance technique which was very practical.

Among the guests present was Col. F. M. Lott, Director of Dental Services for Canada, who had with him a complete dental equipment as used in the Canadian Dental Corps by dentist and dental technician, including a portable x-ray. Everything was packed in five trunks including necessary supplies for any dental service.

■

Gyro Carnival

More than 1,000 people attended the second night of the Port Arthur Gyro Auction Sale and Carnival held on the ground and mezzanine floors of the Canadian Department Stores Building, January 27. This Carnival was held in aid of the Gyro Free Dental Clinic for underprivileged children.

■

Dental Nurses' and Assistants' Associations

WINDSOR CHAPTER—The February meeting of the Essex County Dental Assistants was held in the Canada Building. The custom of this Association has been to have a Vice-president's night once a year, so in keeping with precedent this meeting was in charge of Miss Janet Hamel.

Miss Dorothy Scott read the report of the Ontario Executive meeting, held in Hamilton on January 27, and also read a paper on "Sterilization of Instruments."

It was decided to change the name of the Association to "Essex and Kent County Dental Assistants' Association."

At the close of the meeting Mr. Ivan Sales gave a very interesting talk on "Care of the Hair."

HAMILTON CHAPTER—The January meeting of the Hamilton Dental Nurses' and Assistants' Association was held at the Wentworth Arms Hotel. The speaker of the evening was Dr. W. L. Whitelock, who gave a most interesting talk on "Public Dental Health Service" illustrated by lantern slides.

At the February meeting Mr. C. McKenna, of Toronto, spoke on "Rubber and Amalgam."

TORONTO CHAPTER—The Toronto Dental Nurses and Assistants celebrated their 13th birthday as an Association with a jolly Get-together banquet at Haddon Hall, February 8, with their President, Miss Madge Buik, as hostess. Following dinner a splendid program of games and singing took place under the leadership of Miss Mildred Brown and her Committee, including Misses Peggy Robson,

Doris Gregory, Amy Ellison and Audrey Kribbs. A message of congratulation was received from Miss Coral Gables, Florida, by our honorary member Miss Juliette Southard, which was heartily applauded.

Ottawa Dental Clinics

On February 9 approval was given by the Board of Health to the Collegiate Institute Board, to establish a dental clinic in the high schools.

EMPIRE NEWS

GREAT BRITAIN:

£1,250,000 Gift from Lord Nuffield For Benefit of Provincial Hospitals

The princely gift by Viscount Nuffield of an amount of the value of £1,250,000 for the benefit of hospital work in the Provinces is announced.

Lord Nuffield's published benefactions now exceed a total of £15,000,000.—*D. Mag. & Oral Topics, Dec. 1939.*

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6,000,000 Toothbrushes for British Troops

The Ministry of Supply has been asked by the British Army authorities to provide 6,000,000 toothbrushes for the use of the troops.—*D. Mag. & Oral Topics, Dec. 1939.*

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Dentist's Will: Free Dentures for the Poor

Mr. Edward Regan, a dentist, of Bayswater, London, in his will which has just been proved, directed that on the death of three members of his family the money he left to them in trust should be used for supplying dentures to poor and needy persons at the Dental Hospital, Manchester. Mr. Regan left £4,948 (net personalty, £2,673).—*D. Mag. & Oral Topics, Dec. 1939.*

GENERAL NEWS

Dominion Dental Council of Canada Time-Table

Annual Examinations June 1940

All examinations shall commence at 9 a.m. standard time

Monday, June 10—Preventive Dentistry
Tuesday, June 11—Operative Dentistry
Wednesday, June 12—Prosthodontia
Thursday, June 13—Oral Medicine
Friday, June 14—Dental Surgery & Anaesthesia
Saturday, June 15—Practice Management
Monday, June 17—Clinical Examination and Diagnosis

(At the convenience of the Clinical Examiner.)

The examinations will be held at the following centres:

University of Alberta, Edmonton—Mr. G. B. Taylor.

University of Toronto, Toronto—Dr. Lloyd Davis.

University of Dalhousie, Halifax—Prof. J. H. Johnstone.

The Examinations will be held at the following centres providing five or more candidates apply to write at that point:

University of Saskatchewan, Saskatoon—Mr. A. R. Weir.

University of Manitoba, Winnipeg—Mr. W. J. Spence.

University of New Brunswick, Fredericton—Mr. J. W. Sears.

Prince of Wales College, Charlottetown—Dr. G. D. Steele.

Clinical Examiners

Dr. J. G. Roberts, 807 McLeod Bldg., Edmonton, Alberta.

Dr. Arnold D. Mason, University of Toronto, Toronto, Ontario.

Dr. S. G. Ritchie, 36 South St., Halifax, N.S.

Dr. P. Winthrope, 316 Avenue Bldg., Saskatoon, Saskatchewan.

Dr. H. J. Merkeley, 611 Medical Arts Bldg., Winnipeg, Manitoba.

Dr. F. L. Miller, Fredericton, N.B.

Dr. A. W. M. Allan, Charlottetown, P.E.I.

The application forms along with the fees for the examination must be in the office of the Secretary 30 days prior to the examination. Application forms may be obtained at the Colleges or from Dr. A. J. Brett, Secretary-treasurer of the Dominion Dental Council, 202 Kerr Block, Regina, Saskatchewan.

Canadian Speakers at Baltimore

Canada will be represented at the Dental Centenary meeting being held in Baltimore, March 18-20, by Dr. I. H. Ante, of Toronto, who will read a paper in the scientific section.

Dr. Eudore Dubeau, Dean of the Faculty of Dentistry of the University of Montreal, will represent the Canadian Dental Association at the meeting of the American College of Dentists, which is being held in Baltimore in conjunction with the Centenary Celebration. Dr. Dubeau will speak on "International Relationships."

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Testimonial Dinner to President of the American Dental Association

The First District Dental Society of New York tendered Dr. Arthur Merritt, President of the American Dental Association, a testimonial dinner in honour and appreciation of the eminent services which he has rendered to the dental profession and particularly to the First District Society.

The dinner was held at the Hotel Pennsylvania, New York, N.Y., on the evening of February 21.—*J. A. D. A., Feb. 1940.*

Greater New York Dental Meeting

The attendance at the December 1939 Greater New York Dental Meeting was as follows:—

Dental Students	452
Dental Hygienists, Assistants and others	2,185
Dental Technicians	2,070
Guests of Dentists	1,767
Dental Dealers	757
Exhibitors	717
Dentists	7,585
Total	15,533

—*N. Y. Jour. of D.*

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French Dentists Demobilized

Three thousand doctors, dentists and chemists have been temporarily demobilized by an order of the French Ministry of War, says Reuter.

The order was made for the purpose of providing the civil population with medical and dental assistance and for the sake of economy.—*D. Mag. & Oral Topics, Dec., 1939.*

IN MEMORIAM

Rudolf Kronfeld, of Chicago, Illinois, aged 39, died suddenly in his laboratory on February 13. He was an internationally-known authority on dental research and director of the Foundation for Research of the Chicago College of Dental Surgery. He was also President of the American Academy of Periodontology. His many friends in Canada deeply mourn his passing.

•

B. Franklin Hansel, aged 85, of Hamilton, Ontario, died February 12. He practised in Hamilton for 55 years, retiring twelve years ago.

Dr. Gordon B. New, of the Mayo Clinic, Dr. F. VanDuzer, of Toronto, and Dr. M. H. Garvin, of Winnipeg, were indentured as dental students in Dr. Hansel's office at one time.

William Sylvester Dalby, of Vancouver, British Columbia, died January 30. He was graduated from the Philadelphia Dental College and was registered in British Columbia in 1895. Dr. Dalby was held in high esteem and dearly beloved by all who knew him. He is survived by his widow and son, Jack.

•

Karl A. Daman, of Woodstock, N.S., aged 73, died in February following an illness of two months. He was born in England and came to Canada thirty-five years ago. He entered the Canadian Dental Corps in 1916. He was a member of Woodstock Lodge No. 11, a past high priest of Chapter 8 and a past president of the Canadian Legion.

Captain Daman is survived by his widow, two sons, one daughter, and three brothers in England.

. . . SECTION FRANÇAISE . . .

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L'Infection de Vincent

par ALCIDE THIBAUDEAU, D.D.S.

Je ne sais si je fais erreur, mais j'ai observé un curieux phénomène depuis plusieurs années et le voici: c'est vers la fin de novembre ou au commencement de décembre que des cas d'infection buccale de Vincent se sont présentés chez-moi et toujours plus d'un dans la même période. Il semble bien qu'il en soit ainsi chez mes confrères, car c'est toujours vers cette époque que deux ou trois d'entre eux m'appellent pour causer de ce mal ou pour me demander d'écrire quelque chose à ce sujet.

En effet, il ne serait peut-être pas inutile de faire un faisceau des notions les plus modernes que nous possédons, de cette maladie bénigne parfois très grave quelquefois même fatale.

Je n'ai pas la prétention de résumer ici tout ce qui a été écrit sur ce sujet et encore moins de vous présenter des théories nouvelles ou des découvertes personnelles. Mon bagage scientifique là-dessus comprend beaucoup de bien d'autrui et un peu d'expérience clinique.

Avant de commencer l'étude de cette maladie, il conviendrait peut-être de s'entendre sur le nom qu'elle doit porter. On l'appelle communément l'angine de Vincent. Or, un jour de consultation, un de nos plus éminents spécialistes de la gorge me fit remarquer que les dentistes avaient tort d'appeler cette infection angine, quand elle se limite à la bouche et je crois qu'il avait raison, puisque la médecine veut que l'angine soit une inflammation aiguë ou chronique du gosier ou du pharynx. Alors, quand elle est située dans notre domaine pourquoi ne pas l'appeler simplement, stomatite de

Vincent, et lui ajouter le qualificatif approprié à sa forme. Soit stomatite ulcéro-membraneuse, si elle prend la forme d'ulcères qui ressemblent au chancre syphilitique; ou encore stomatite pseudo-membraneuse si elle revêt une texture semblable à celle de la diphtérie. Et l'on dit de Vincent, parce que c'est lui, qui en 1896 découvrit que certains états pathologiques du pharynx ou de la bouche, et quelquefois des deux, étaient dus à une association du bacille fusiforme et d'un spirille dont il donne la description.

Symptomes.

Avant de décider si oui ou non il y a stomatite de Vincent, voyons d'abord quels sont les signes cliniques de cette maladie, les plus facilement perceptibles. Il y a ceux que le patient perçoit lui-même et dont il vous donnera la description, ce sont les symptômes subjectifs.

Douleur—La première plainte est celle d'une douleur considérable aux gencives et même à la langue, si bien qu'il ne peut plus mastiquer ses aliments, se brosser les dents, remuer les lèvres, ou se toucher les gencives.

Hémorragie gingivale — Il notera aussi que ses gencives saignent facilement et particulièrement le soir.

Il se plaint aussi: d'une *trop grande abondance de salive, d'irritation à la gorge* et par conséquent de *déglutition difficile,* de *nausées,* de *maux* de *tête,* de *lassitude,* de *perte d'appétit.* Quelques-uns même perçoivent un *goût métallique.*

Si le praticien procède maintenant à l'examen de son patient, voici les symptômes objectifs qu'il pourra percevoir:

1o *Une odeur fétide* très caractéristique des tissus nécrosés.
2o La gencive est recouverte d'un *dépôt grisâtre* qui s'enlève facilement, laissant la gencive dénudée et sanglante.
3o *Les glandes sub-linguales et sous-maxillaires gonflées et douloureuses.*
4o La *température* du patient augmente selon la gravité du cas.
5o *La langue est très chargée.*

Diagnostique.

Si tous les symptômes que nous venons d'énumérer allaient se présenter en même temps et sans autres complications, diagnostiquer une stomatite de Vincent serait relativement facile, mais en fait si la maladie est à ses débuts, quelques-uns des symptômes manquent ou ne sont pas bien caractérisés ou encore ressemblent étrangement aux symptômes d'autres maladies buccales. Il convient donc de rechercher immédiatement la présence de l'association fuso-spirillaire.

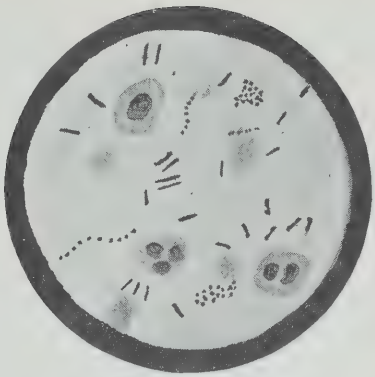
Microbiologie.

Il n'y a qu'un moyen de faire un diagnostique sûr, c'est l'examen direct d'un prélevé en frottis sur lames. Il en faudra plusieurs échantillons pour tenter diverses colorations, si cela est nécessaire pour faire un diagnostique différentiel. Sachant déjà que les fusiformes et les spirilles de Vincent ne prennent pas le Gram, on tentera tout de suite la coloration par la thionine phéniquée. Si vraiment nous avons affaire à une infection de Vincent, nous trouverons une association de deux sortes de microbes. Un bâtonnet assez long, de 8 à 15μ, épais au centre et très effilé aux deux extrêmités. C'est le fusiforme, et il ne faudrait pas le confondre avec le bacille de la diphtérie qui se présente aussi sous forme de bâtonnets de différentes grosseurs, mais qui au lieu d'être effilés sont plutôt cocciformes et prennent le Gram.

Dans certaines formes de l'infection de Vincent, telles les lésions pseudo-membraneuses on ne trouvera presque pas ou pas du tout de spirilles, mais dans l'abcès ou la forme ulcéro-membraneuse, l'association du fusiforme et du spirille sera évidente. Bien qu'on puisse les rencontrer dans une bouche normale, on peut rigoureusement diagnostiquer une infection de Vincent quand après un examen clinique on trouve cette

Bacilles fusiformes et spirilles, dans l'exudat de l'angine de Vincent à forme ulcéro-membraneuse.
(D'après Nicolle et Remlinger)

Coloration par la thionine. Grossiss.: 800. On voit les bacilles fusiformes longs, minces, droits ou incurvés. Dans la forme ulcéro-membraneuse, les spirilles leur sont toujours associés en grand nombre comme ici. Les globules de pus, polynucléaires et mononucléaires, sont altérés, à noyeau mal délimité. L'aspect des bacilles et des spirilles peut être un peu différent de celui que nous montrons ici.



Frottis d'un exudat dyphtérique Coloration par la thionine.

Grossiss: 800.

On voit: les bacilles dyphtériques en bâtonnets; quelques chaînettes de streptocoques; quelques amas de staphylocoques. En outre de nombreux filaments de fibrine, 3 globules de pus (2 polynucléaires et un mononucléaire) et 4 globules rouges.

(E. Agasse Lafont)

association fuso-spirillaire bien marquée au microscope. Ce spirille ne prend pas le Gram, il est un peu plus gros que celui de la syphilis et la confusion n'est pas possible.

Etiologie.

Il semble bien difficile d'affirmer catégoriquement que tel ou tel facteur est la cause d'une infection de Vincent. Ainsi je ne crois pas à la contagion possible, en tous cas chez les sujets confiés à mes soins, je n'ai jamais pu établir l'évidence de la contagion. Voici ce qu'en dit en outre, le Dr E. Agasse Lafont, chef de clinique et de laboratoire.

"On a d'ailleurs été frappé de l'absence de contagion de cette maladie et de l'impossibilité d'inoculation dans les tissus sains. Aussi semble-t-il qu'elle ne se développe que sur des tissus altérés de moindre résistance, (Angine préexistante, éruption vicieuse d'une dent de sagesse, chancre syphilitique, etc.) Cette notion est capitale, puisqu'elle montre la nécessité de chercher et de traiter aussi, s'il y a lieu, la lésion sousjacente." En somme la cause occasionnelle serait un affaiblissement des tissus gingivaux qui à son tour peut être déterminé par plusieurs facteurs différents. Parmi ces facteurs on peut noter les défauts d'alimentation ou de nutrition, les régimes de vie ou de travail qui épuisent, l'abus du tabac chez des sujets déjà sans défense, ou l'apparition dans la bouche de lésions spécifiques, etc.

S'il nous arrive de rencontrer plusieurs cas dans une même communauté telle que l'armée, la marine, etc, cela prouve-t-il bien la contagion? Ne serait-ce pas plutôt que tous les individus atteints, étaient soumis aux mêmes conditions prédisposantes. En est-il un exemple plus frappant que la vie des tranchées. L'infection de Vincent y est si fréquente qu'en certains milieux on l'a appelée bouche de tranchée. (Trench mouth). Pourtant je ne crois pas que la transmission des microbes d'un soldat à l'autre y soit bien facile. On ne s'y embrasse certainement pas, et les ustensiles communs doivent être

rares aussi. Il ne doit y avoir là de commun à tous que la dureté de la vie et des conditions fort défavorables d'alimentation.

Dans les cas graves, il ne serait pas sage de ne rechercher que le bacille de Vincent, la prudence impose un diagnostique différentiel. Autrement, on courrait le risque d'ignorer la concomitance d'une autre maladie grave, telle la syphilis, la diphtérie, ou d'une avitamisose avancée. Il existe parfois des associations de lésions assez curieuses. Ainsi mes confrères dans l'enseignement doivent se rappeler ce cas d'une jeune fille de 17 ans que j'avais emmenée à la clinique tellement il me semblait propice à une bonne leçon. Elle s'était présentée chez-moi avec une lésion considérable à la joue et au maxillaire supérieur gauche. Il suffisait d'écarter un peu la joue pour voir tous les tissus gingivaux se détacher de l'os maxillaire, de la première prémolaire à la seconde molaire, sur une hauteur de près de deux centimètres. A première vue, il était facile de reconnaître presque tous les signes cliniques de la stomatite de Vincent, mais comme l'ulcération de la joue ressemblait étrangement à une lésion spécifique, notre premier soin fut de chercher le tréponème et de faire une analyse de sang. Tout cela fut négatif. Un interrogatoire sérieux nous révéla que ce sujet se nourrissait exclusivement d'aliments bouillis, rôtis ou en conserve. Jamais de légumes verts ou de fruits. Il fut donc conclu qu'une déficience de vitamine C était la cause probable de la lésion initiale, mais qu'il y avait nécessairement autre chose. Il va sans dire, que des frottis sur lames donnèrent des quantités incroyables de bacilles fusiformes et de spirilles de Vincent. Eh bien, après avoir modifié l'alimentation de la patiente, essayé divers traitements locaux et même les arsénobenzols, on vit bien disparaître les signes ordinaires de l'infection de Vincent et même l'association fuso-spirillaire, mais la suppuration semblait se tarir ni dans la joue ni au maxillaire. Il nous parut même que l'os maxillaire commençait à changer de texture.

Je fis part de mes inquiétudes à mon confrère Charles Bertrand, médecin réputé par la précision de son diagnostique et qui presqu'au début de mon exposé me demanda si je n'avais pas pensé à une mycose possible.

Les analyses du laboratoire démontrèrent en effet la présence indubitable d'une actinomycose. Après un court traitement aux iodures, la patiente guérit sans autre intervention.

Une infection de Vincent peut donc n'être que la simple complication d'une autre lésion.

Traitements.

Voici donc la partie de mes remarques la plus difficile à traiter, car c'est la plus discutable et aussi la plus discutée. Je ne connais pas encore de procédé qui ait commandé l'unanimité des praticiens. Une multitude de traitements ont été préconisés qu'on prétend être infaillibles. Je me contenterai donc d'en indiquer quelques-uns en insistant un peu sur ceux qui m'ont paru les meilleurs.

Dans son numéro de janvier dernier, le New York Journal of Dentistry publiait le rapport d'une enquête faite par un comité de la First District Dental Society, et il appert que sur 501 réponses, on y recommande au moins 40 traitements différents. Nos voisins ont ouvert au monde dentaire de merveilleuses sources d'information, mais il ne serait pas juste de ne pas leur accorder en même temps tous les records de l'empirisme.

Il ressort tout de même de cette enquête que certains médicaments restent en faveur malgré les apparitions nouvelles et quotidiennes. Retenons donc que le perborate de soude et les préparations arsénicales semblent avoir donné les meilleurs résultats. Si je ne fais aucune mention de l'acide chromique, c'est que je considère comme inutile de recommander un médicament dont l'efficacité peut être égale à celle des autres, mais qui comporte une trop grande proportion de danger. Je ne m'arrêterai pas non plus à décrire en même temps l'usage du perborate, car chacune des compagnies qui le prépare chez nous, fournit avec la marchandise un mode d'emploi simple et judicieux. A

mon humble avis, le perborate de soude est un adjuvant très précieux dans tout traitement des stomatites de Vincent. Cependant dans bien des cas il sera insuffisant et l'on devra faire usage des préparations arsénicales. Si le cas est très grave, il serait peut-être bon de s'entendre avec le médecin du patient pour lui faire administrer quelques injections intra-veineuses. Mais cela n'exclura pas les applications locales de Mapharsen ou de Néo-arsphénamine, deux préparations spéciales des maisons Abbott et Parke Davis. Le bleu de méthylène et les autres colorants ont le désavantage de tacher les dents et certaines obturations de façon permanente.

Devoirs du Praticien.

Dans les remarques forcément incomplètes qui ont précédé, le rôle du dentiste semble réduit à sa plus simple expression, pourtant c'est lui qui sera le principal agent de la guérison. Quand son diagnostique est bien établi, le dentiste ne doit jamais oublier *qu'aucune intervention chirurgicale n'est permise* dans cette bouche, pas même une extraction s'il est possible de la retarder. Il est même à conseiller de ne pas procéder au nettoyage mécanique des dents dès la première visite. Cette opération pourra être effectuée après quelques traitements. Ce qui ne veut pas dire qu'aucun nettoyage ne doit être tenté. Au contraire, il convient avant chaque traitement de nettoyer la bouche par de copieux arrosages tièdes, pour la débarrasser de toutes les mucosités qu'elle contient. Le vaporisateur à air comprimé est bien l'instrument qui convient le mieux, car les vaporisations pénètreront dans les interstices dentaires pour les vider. Dans ce but on peut employer les solutions de perborate de soude ou encore les solutions chlorurées dont les propriétés détersives sont bien connues. Ceux qui n'ont pas d'air comprimé peuvent employer pour ce nettoyage de gros flocons légers de coton absorbant, ou encore une brosse très molle. Quand on aura réussi à dépouiller les gencives et les dents de leur enduit grisâtre, on procédera à l'application du médicament choisi selon la méthode recommandée. Ensuite on dira au patient ses devoirs, en l'avertissant que le traitement pourrait être long. Après deux ou trois séances quotidiennes on pourra faire l'ablation des dépôts s'il y en a. Cette opération requiert une extrême prudence, car il faut autant que possible éviter toute lésion aux tissus gingivaux. En étudiant les causes des stomatites de Vincent nous avons dit qu'elles sont presque toujours causées par un abaissement de la vitalité des tissus gingivaux. Le praticien devra donc chercher quelles ont été les causes de cet affaiblissement et prescrire des conditions d'alimentation ou de vie susceptibles de les faire disparaître.

Devoirs du Patient.

Les malades doivent comprendre que leur coopération est essentielle à leur guérison.

Pendant toute la durée du traitement ils devront donc s'abstenir de tout usage de tabac, de liqueurs alcooliques, d'épices ou de toutes autres substances irritantes. Ils devront en outre brosser leurs dents trois ou quatre fois par jour et particulièrement au coucher. Cette fois cependant les brosses à soies rigides ne sont pas utilisables, il faut les ramollir en les laissant tremper quelques temps dans l'eau bien chaude avant de s'en servir. A peine d'être accusé de faire de la réclame commerciale, je n'hésite pas à recommander dans ces cas la pâte KOLYNOS ou toute autre semblable, tellement son usage m'a procuré de satisfaction personnelle.

Après ce brossage, le patient procèdera au rinçage prolongé de sa bouche avec les solutions recommandées par son dentiste et surtout sera fidèle aux visites quotidiennes qu'il doit lui faire.

En Marge de l'Introduction à l'Etude Pharmacodynamique des Hémostatiques par la Méthode de la Corrélation *

par J. ROSKAM
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Les Archives internationales de Pharmacodynamie et de Thérapie ont publié récemment une technique que nous avons imaginée et une méthode qu'avec la collaboration de notre très estimé collègue, L. Pauwen, nous avons mise au point, en vue de l'étude expérimentale de l'hémostase spontanée (1). Nous leur avons d'autre part réservé l'exposé détaillé des premières recherches pharmacodynamiques sur les hémostatiques, effectuées grâce à l'emploi conjoint de ces deux nouveaux instruments de travail (2).

Au cours de la longue période d'élaboration de notre méthode de la corrélation, nous avons, par notre technique du lavage des plaies, recueilli maints autres résultats expérimentaux. Certains ont été sommairement relatés dans nos communications préliminaires (3). Leur interprétation nous paraît aujourd'hui moins simple qu'alors. Il n'est pas question, en effet, de les considérer à la lumière des enseignements découlant de notre étude statistique sur la corrélation des temps de saignement de l'une et l'autre oreille.

Aussi bien, envisagés isolément, ces résultats ne nous renseignent-ils sur l'action hémostatique des médicaments expérimentés, qu'au cas où le temps de saignement s'est trouvé fortement raccourci ou allongé consécutivement à l'administration des drogues.

Nous croyons néanmoins utile de publier ici plusieurs d'entre eux, relatifs à l'action locale de remèdes réputés hémostatiques. Peut-être inciteront-ils quelque chercheur à mettre au point une méthode précise d'étude pharmacodynamique de ces médicaments appliqués localement, en infiltration des tissus saignants ou à inciser. De toutes façons, ils apportent certaines indications sur une possibilité d'administration des hémostatiques que nous n'avons pas envisagée dans le second des mémoires auxquels nous avons fait allusion plus haut.

Technique

Rappelons sommairement la technique de la détermination du temps de saignement sous eau courante à laquelle nous avons eu recours.

Elle consiste fondamentalement en l'observation directe, à l'œil nu ou à la loupe, de la durée d'une hémorragie provoquée, le sang qui s'écoule de la plaie étant emporté par un faible courant d'eau.

L'animal en expérience — un lapin — étant fixé sur le dos dans une gouttière de Claude-Bernard, tête immobilisée par un mors approprié, la peau de la face externe des oreilles, soigneusement rasée depuis la veille, et le tissu cellulaire sous-cutané sous-jacent sont incisés à plusieurs reprises au moyen d'un scalpel acéré et fraîchement aiguisé, sur

(1) J. Roskam et L. Pauwen.—Une technique et une méthode pour l'étude de l'hémostase spontanée et des médications hémostatiques. *Arch. intern. de Pharmacodyn. et de Thérap.*, 1937, LVII, 450-466.

(2) J. Roskam.—Introduction à l'étude pharmacodynamique des hémostatiques par la méthode de la corrélation. *Arch. intern. de Pharmacodyn. et de Thérap.*, 1938, LVIII, (sous presse).

(3) Voir les *C. R. Soc. Biol.*, années 1933 et 1934, ainsi que *l'Echo Médical du Nord*, 1934, 3e série, 11, nº 34, 338-351.

* *Extrait de la* Revue Belge des Sciences Medicales, t. X, Nº 3, mars 1938.

une longueur de quelques millimètres. Ces incisions sont pratiquées à un endroit où l'on peut, par transparence, observer de petits vaisseaux collatéraux unissant les vaisseaux centraux de l'oreille aux vaisseaux marginaux. Les sections — nettes et rapides — terminées, on projette sur les tissus circonvoisins, à quelques millimètres de distance, sous faible pression, un jet d'eau pure (eau de conduite) portée à une température constante pour chaque expérience (25° à 32°, le plus souvent 27 à 30° C) et amenée à un pH de 6.8 à 7.

Ainsi le sang s'écoulant des pertuis vasculaires est constamment emporté par le liquide lavant la plaie et l'hémorragie peut être aisément observée à l'œil nu ou à la loupe. Pour obtenir des temps de saignement comparables à ceux que donne l'épreuve clinique de Duke (par adsorption du sang à l'aide d'un papier poreux), on considère comme terminée toute hémorragie n'ayant point repris après une demi-minute d'arrêt. La durée du saignement représente évidemment, dans ces conditions, le temps écoulé entre le moment de l'incision des vaisseaux et celui où le sang cesse de soudre de la plaie.

Comme dans les expériences relatées dans notre "Introduction à l'étude pharmacodynamique des hémostatiques par la méthode de la corrélation", vingt temps de saignement sont déterminés de cette façon, sous eau courante, au niveau de l'une et l'autre oreille (4).

Comme dans ces expériences, les incisions provoquant les hémorragies destinées à la détermination des bleeding-times sont pratiquées par groupes de cinq, en des régions rigoureusement symétriques, l'oreille droite servant à la récolte des temps témoins, la gauche à celle des temps modifiés.

Mais cette fois, immédiatement avant de pratiquer chaque série de cinq incisions, 0.6 cm^3 de solution physiologique de pH: 7 à l'oreille droite, le même volume de la solution médicamenteuse étudiée à l'oreille gauche sont injectés dans le tissu cellulaire sous-cutané, au niveau de la région où les bleeding-times seront observés. La boule d'œdème ainsi produite est aussitôt étalée par massage, puis la peau et le tissu cellulaire sous-cutané sont sectionnés dans la zone infiltrée et la durée de l'hémorragie notée sous eau courante.

Que nous apprirent ces expériences sur l'action des hémostatiques appliqués localement, en infiltration des tissus à inciser?

Resultats des experiences

1. *Experiences de contrôle.*

Un petit nombre d'expériences de contrôle — trop réduit pour qu'elles puissent constituer les éléments d'une étude statistique — tend à nous prouver qu'au cas où les pavillons de l'une et l'autre oreille sont infiltrés de solution physiologique, il existe une étroite corrélation entre les moyennes de vingt bleeding-times recueillis de part et d'autre.

La chose n'est pas faite pour nous étonner. Nous avons constaté que chez un animal aux oreilles non infiltrées, les moyennes de vingt temps de saignement recueillis en des portions respectivement symétriques des oreilles droite et gauche présentent entre elles une étroite corrélation. Aussi devions-nous nous attendre à ce qu'un rapport du même ordre existât entre ces mêmes moyennes — que désormais nous appellerons temps de saignement moyens — après une infiltration identique, à droite et à gauche, du tissu cellulaire sous-cutané.

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(4) Signalons toutefois que les temps de saignement relatés dans les tableaux IV, V, IX et X représentent chacun la moyenne de 15 bleeding-times individuels, que ceux du tableau X correspondent à la moyenne de 12 bleeding-times individuels et ajoutons que les incisions pratiquées pour la détermination de ces temps furent pour la plupart localisées vers l'extrémité distale des oreilles.

De toutes façons, le tableau ci-dessous plaide en faveur de l'existence de cette corrélation.

TABLEAU I.

Temps de saignement moyens enregistrés chez des lapins aux oreilles infiltrées de solution physiologique neutre.

Numéros d'ordre des Lapins	LXXIII	LXXIV	LXXV	LXXVI	LXXVII
T.S. moyens oreille droite	2'55"	1'37"	4'05"	1'22"	2'48"
T.S. moyens oreille gauche	2'57"	1'51"	3'50"	1'44"	2'43"
Ecarts entre ces T.S.	+ 2"	+ 14"	— 15"	+ 22"	— 5"
Moyenne des écarts observés:	+ 4"				

Au lieu d'infiltrer la peau du pavillon de l'oreille gauche de solution physiologique, à l'égal de celle de l'oreille droite, recourons, pour elle, à différentes substances médicamenteuses (5) et tout d'abord à celles dont nous avons appris qu'administrées par la voie intraveineuse ou en lavage des plaies, elles prolongent ou ne modifient pas le temps de saignement moyen. Qu'observons-nous?

2. *Glucono-galactogluconate de calcium.*

Si le produit infiltrant l'oreille gauche est le glucono-galactogluconate de calcium dit "Calcium Sandoz' 'en ampoules à 10 p. 100, nous constaterons plus encore, semble-t-il, qu'après l'injection intraveineuse de ce médicament, une notable prolongation du bleeding-time. En font foi les chiffres ci-dessous.

TABLEAU II.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 *cm³ de calcium Sandoz, sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CCXXIX	CCXXX	CCXXXI	CCXXXII
T.S. moyens témoins	2'48"	4'48"	3'59"	4'01"
T.S. moyens modifiés	8'19"	12'59"	7'26"	9'50"
Ecarts entre ces T.S.	+ 331"	+ 491"	+ 207"	+ 349"
Moyenne des écarts observés:	+ 345"			

3. *Peptone de Witte.*

De même l'infiltration du tissu cellulaire sous-cutané au moyen de 0.6 cm³ d'une solution à 5 p. 100 de peptone de Witte (Rp. Peptone 50 ctgr., chlorure de sodium 4 ctgr. 5, eau distillée q. s. pour 10 cm³) paraît entraver davantage l'hémostase que l'injection intraveineuse lente de 1 cm³ de ce produit. Tend, en tout cas, à le démontrer la comparaison du tableau ci-dessous avec le tableau III de notre second mémoire des Archives internationales de Pharmacodynamie et de Thérapie.

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(5) Les firmes BYLA, de Paris; CIBA, de Bâle; LUITPOLD-WERK, de Münich; PARKE, DAVIS et Cie, de Londres; SANDOZ, de Bâle et SPECIA, de Paris nous ont très aimablement fourni la plupart des produits que nous utilisâmes au cours des recherches dont il est question dans cet article. Nous les remercions vivement de cette gracieuse collaboration à nos travaux et sommes heureux de signaler que dans un esprit très scientifique, ces maisons nous ont autorisé à publier nos résultats, même s'ils devaient être défavorables aux produits fabriqués par elles.

TABLEAU III.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'une solution à* 5 *p.* 100 *de peptone de Witte, sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CCL	CCLI	CCLII	CCLIII
T.S. moyens témoins	2'25"	2'21"	2'03"	1'46"
T.S. moyens modifiés	5'04"	3'39"	7'13"	4'44"
Ecarts entre ces T.S.	+ 159"	+ 78"	+ 283"	+ 174"
Moyenne des écarts observés:	+ 174"			

4. *Hémoplastine.*

Infiltrons l'oreille gauche d'un lapin à l'aide de 0.6 cm^3, par région à inciser, du dérivé sérique délivré par la firme Parke, Davis et C^ie^ sous le nom d'hémoplastine, et nous assisterons très vraisemblablement, ainsi que le font augurer les essais par nous réalisés et relatés ci-contre (Tableau IV), à une prolongation marquée des bleeding-times par rapport aux temps de saignement témoins.

TABLEAU IV.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'hémoplastine P. D. sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CXXX	CXXXI	CXXXII	CXXXIII
T.S. moyens témoins	2'24"	2'17"	2'06"	1'52"
T.S. moyens modifiés	7'20"	4'24"	6'41"	3'09"
Ecarts entre ces T.S.	+ 294"	+ 127"	+ 275"	+ 77"
Moyenne des écarts observés:	+ 193"			

5. *Claudène.*

L'administration, en infiltration, de cet extrait de tissus, plus spécialement de poumons, que fabrique la Luitpold-Werk et qu'elle a baptisé claudène, ne paraît pas non plus, d'après nos résultats, susceptible de favoriser localement l'hémostase spontanée. Du moins est-ce l'impression qui se dégage de l'examen du tableau ci-dessous.

TABLEAU V.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *de claudène, sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CXXVI	CXXVII	CXXVIII	CXXIX
T.S. moyens témoins	2'12"	2'24"	2'12"	2'14"
T.S. moyens modifiés	3'30"	4'31"	3'11"	3'28"
Ecarts entre ces T.S.	+ 78"	+ 127"	+ 59"	+ 74"
Moyenne des écarts observés:	+ 84"			

6. *Gélatine.*

Ramenée au pH: 6.8 par addition de solution normale de soude et injectée dans le tissu cellulaire sous-cutané, à l'endroit où les incisions allaient être pratiquées, la solution de gélatine Merck à 10 p. 100 entraîna, au cours de nos essais, des modifications inconstantes du temps de saignement, modifications ne laissant toutefois en rien présager qu'elle puisse jamais constituer un bon hémostatique (Tableau VI).

TABLEAU VI.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'une solution de gélatine à* 10 *p.* 100 *de pH:* 6.8, *sur le temps de saignement du lapin.*

Numéros d'ordre des Lapins	CCLXXXVI	CCLXXXVII	CCLXXXVIII	CCLXXXIX
T.S. moyens témoins	3'06"	4'36"	2'48"	2'44"
T.S. moyens modifiés	4'13"	3'42"	3'13"	2'45"
Ecarts entre ces T.S.	+ 67"	— 54"	+ 25"	+ 1"
Moyenne des écarts observés:	+ 10"			

L'action favorable que peuvent ou sont censées exercer sur la coagulation sanguine les substances dont il vient d'être question, nous avait laissé espérer, au début de nos recherches, qu'administrées localement, en injection sous-cutanée, elles abrégeraient la durée d'une hémorragie provoquée. Les résultats négatifs auxquels nous conduisirent nos essais nous incitèrent à étudier l'effet sur l'hémostase spontanée, de l'infiltration des tissus à inciser au moyen de deux produits à pouvoir coagulant particulièrement marqué: le sérum chloroformique et le fibrogène. Cette fois encore, l'expérience déçut notre attente.

7. *Sérum chloroformique.*

Rappelons brièvement les différents temps de la préparation du sérum chloroformique de lapin dont nous avons démontré ailleurs l'absence de pouvoir hémostatique en lavage des plaies: saignée d'un lapin à l'aide d'une canule paraffinée et oxalatation du sang à 2 p. 1000; séparation du plasma d'avec les éléments figurés par centrifugation énergique et prolongée; recalcification du plasma par addition de un ou deux dixièmes de son volume d'une solution aqueuse de chlorure calcique à 2 p. 100 et, aussitôt après, agitation énergique du plasma ainsi recalcifié avec un demi-volume de chloroforme; après une heure et demie de séjour dans une étuve à 37° C, centrifugation brève et énergique du plasma coagulé; pipettage prudent du sérum chloroformique surnageant, limpide et fortement coagulant, dont on évapore ultérieurement le chloroforme en le plaçant pendant une demi-heure à l'étuve à 37° C, sous faible épaisseur, dans une boite de Pétri.

Le tableau VII nous montre que l'infiltration des tissus à inciser par ce sérum très riche en thrombine n'exerce, en tout cas, aucun effet favorable sur l'hémostase spontanée.

TABLEAU VII.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *de sérum chloroformique, sur le temps de saignement du lapin.*

Numéros d'ordre des Lapins	CCXC	CCXCI	CCXCII	CCXCIII
T.S. moyens témoins	2'24"	3'30"	3'01"	3'07"
T.S. moyens modifiés	2'32"	3'48"	3'28"	3'52"
Ecarts entre ces T.S.	+ 8"	+ 18"	+ 27"	+ 45"
Moyenne des écarts observés:	+ 25"			

8. *Fibrogène.*

Le fibrogène (extrait de tissu pulmonaire préparé par la méthode de Mills) dont je me suis servi et qui m'avait été fourni par mon collègue et ami C. Heymans, était doué d'un pouvoir coagulant extrêmement accusé. En effet, administré à un lapin par la voie intraveineuse, à la dose de quelques dixièmes de centimètre cube, il tuait aussitôt l'animal. L'autopsie pratiquée sur le champ révélait la présence de gros caillots sanguins dans l'appareil circulatoire, notamment dans le cœur.

Injecté dans le tissu cellulaire sous-cutané de l'oreille, ce médicament provoqua l'apparition locale d'une intense cyanose. Après incision de l'oreille dans la zone infiltrée par le produit, des caillots cruoriques se formèrent de façon très précoce, quasi instantanée, au niveau des plaies et leur adhérèrent fortement. Toutefois, en dépit de cette coagulation immédiate, le sang continua à sourdre sous ces caillots et les temps de saignements furent très fortement allongés (Tableau VIII).

TABLEAU VIII.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *de fibrogène, sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CCLIV	CCLV	CCLVI	CCLVII
T.S. moyens témoins	3'25"	2'53"	3'54"	2'47"
T.S. moyens modifiés	13'18"	20'19"	18'24"	15'52"
Ecarts entre ces T.S.	+ 593"	+ 1032"	+ 858"	+ 785"
Moyenne des écarts observés:	+ 817"			

9-10. *Chlorhydrate d'adrénaline synthétique; chlorhydrate d'éphédrine lévogyre.*

En infiltration des tissus à inciser, deux amines fortement vaso-constrictives ne nous donnèrent, contre toute attente, que des prolongations du temps de saignement moyen. Celles-ci furent, comme le montrent les tableaux IX et X, beaucoup plus considérables lorsque nous eûmes recours à une solution de chlorhydrate d'éphédrine lévogyre à 2.5 p. 100 que lorsque nous utilisâmes une solution de chlorhydrate d'adrénaline synthétique à 0.5 p. 1000. Toutefois, si dans ces conditions, l'hémorragie dura plus longtemps, la perte de sang dans l'unité de temps devint, du fait de la vaso-constriction, beaucoup moins importante.

TABLEAU IX.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'une solution de chlorhydrate d'adrénaline synthétique à* 0.5 *p.* 1000, *sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	XC	XCI	XCII	XCIII	XCIV
T.S. moyens témoins	2'10"	1'54"	2'16"	1'17"	2'15"
T.S. moyens modifiés	4'24"	2'36"	3'16"	1'22"	3'16"
Ecarts entre ces T.S.	+ 134"	+ 42"	+ 60"	+ 5"	+ 61"
Moyenne des écarts observés:	+ 60"				

TABLEAU X.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'une solution de chlorhydrate d'éphédrine lévogyre à* 2.5 *p.* 100, *sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	XCV	XCVI	XCVII	XCVIII	XCIX
T.S. moyens témoins	1'48"	1'47"	2'04"	1'49"	1'58"
T.S. moyens modifiés	13'03"	15'52"	11'37"	17'00"	15'26"
Ecarts entre ces T.S.	+ 675"	+ 845"	+ 573"	+ 911"	+ 808"
Moyenne des écarts observés:	+ 762"				

A côté de tous ces produits dont nous venons de constater, en application locale, par voie hypodermique, l'effet néfaste ou apparemment nul sur le temps de saignement moyen, n'en est-il donc point qui soient susceptibles, lorsqu'ils infiltrent les tissus à inciser, de favoriser la constitution du clou hémostatique?

11. *Coagulène.*

Nous avons signalé ailleurs l'heureuse influence sur l'arrêt spontané des hémorragies, de l'administration, à même le torrent circulatoire ou en lavage des plaies, d'un extrait de sang, plus spécialement de thrombocytes de bovidés, préparé par les laboratoires Ciba sous le nom de coagulène.

Infiltrons le tissu cellulaire sous-cutané de l'oreille de lapins à l'aide de 0.6 cm^3, par région à inciser, de la solution de coagulène délivrée en ampoules par la firme Ciba: nous constaterons — comme le montre le tableau XI — une notable et constante réduction des bleeding-times déterminés dans la zone infiltrée du médicament, par rapport aux temps de saignement témoins.

TABLEAU XI.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'une solution à* 3 *p.* 100 *de coagulène sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	LXXXV	LXXXVI	LXXXVII	LXXXVIII	LXXXIX
T.S. moyens témoins	2'33"	2'45"	1'40"	3'09"	1'50"
T.S. moyens modifiés	2'01"	1'49"	1'22"	2'02"	1'10"
Ecarts entre ces T.S.	— 32"	— 56"	— 18"	— 67"	— 40"
Moyenne des écarts observés:	— 43"				

Nos recherches antérieures nous ont montré que l'action favorable du coagulène sur l'arrêt spontané des saignements dépend très vraisemblablement des phosphatides du type "céphaline" entrant dans la composition de ce produit. Injectés par la voie intraveineuse, les phosphatides du type "lécithine" ont par contre, au cours de nos essais, régulièrement entravé l'hémostase spontanée.

Nos expériences d'infiltration plaident également en faveur du rôle hémostatique des phosphatides du type "céphaline": administrés en injection hypodermique dans la zone à inciser, à une concentration analogue à celle que nous leur avons trouvée dans la solution de coagulène à 3 p. 100, ils ont en effet — comme le montre le tableau XII — constamment réduit le "bleeding-time" moyen.

TABLEAU XII.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'une solution à* 4 *p.* 1000 *de céphaline en solution physiologique, sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CCCLXXXI	CCCLXXXII	CCCLXXXIII	CCCLXXXIV
T.S. moyens témoins	3'10"	4'42"	3'09"	2'33"
T.S. moyens modifiés	2'17"	4'12"	2'23"	2'10"
Ecarts entre ces T.S.	— 53"	— 30"	— 46"	— 23"
Moyenne des écarts observés:	— 38"			

D'autre part, ces mêmes expériences d'infiltration nous ont également révélé que purifiés, les phosphatides du type "lécithine", à une concentration analogue, prolongent par contre de façon nette, tout comme lorsqu'ils sont injectés dans le torrent sanguin, la durée des hémorragies provoquées (Tableaux XIII et XIV). *(a suivre)*

"MORAINE LAKE", by R. N. Kauffman, San Francisco, Third Prize in the Canadian Rockies Colour Photograph Contest.
Courtesy of Saturday Night.

If you have never used your mind, if you have shelved every problem—national and personal—that crops up, and just been content to drift along the path of least resistance, a time will come when you can't stand your own company.

Feed your mind with the thoughts of others in books and lectures—and you'll find that not only do others begin to seek out your company, but you'll also enjoy it yourself!

You remember Hamlet said "I could be bounded in a nutshell, and count myself a king of infinite space . . ." You can only do that if you have a mind well stocked with the thought and wisdom of the ages, and of your own day, too.—Leonora Eyles in "Everywoman's."

W. W. IRWIN, D.D.S.,

Moose Jaw, Saskatchewan

President of the Council of the College of Dental Surgeons of Saskatchewan.

Past President, Moose Jaw Dental Society.

Was graduated from Northwestern Dental School and Dewey School of Orthodontia.

Registered under the College of Dental Surgeons of the Northwest Territories.

Member of United Church; Masonic Lodge; Ancient Order of Mystic Shrine; Moose Jaw Club; Assiniboia Club, Regina; Moose Jaw Golf Club; Moose Jaw Badminton Club.

City Golf Champion.

Provincial Badminton Veteran Champion.

President of several business and financial companies.

Owner of first private air plane, hangar, and air field in Moose Jaw.

The Journal
OF THE CANADIAN DENTAL ASSOCIATION

VOL. 6 TORONTO, APRIL, 1940 NO. 4

An Investigation Concerning the Dentitions of the Eskimos of Canada's Eastern Arctic

A PRELIMINARY REPORT

by CHAS. H. M. WILLIAMS, D.D.S., B.Sc. (Dent.), Toronto, Ontario.

THE data collected during a dental survey and investigation among the Eskimos of Canada's Eastern Arctic during the past summer (1939) is not yet sufficiently compiled and correlated to permit any final conclusion but the following impressions and suggestions are submitted as an interim report.

1. The development of the dental arches and the arrangement of the teeth among the Eskimos is still much more nearly normal than among modernized humans but many of the dental arches of the Eskimos exhibit an irregularity of arrangement of the incisor teeth which is common to the first stage of degeneration of the dental mechanism.

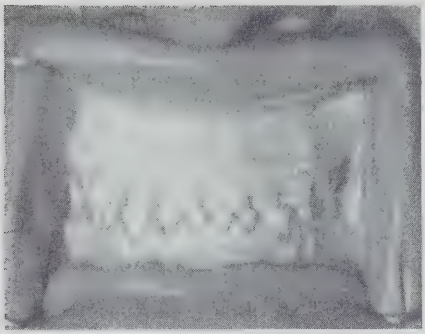
2. Immunity to dental caries still persists in the mouths of all the Eskimos examined except those who live at the posts as employees, those who are on relief diet, or those who are wealthy enough to have a larger than average proportion of the white man's food.

3. Susceptibility to periodontitis (pyorrhea) is almost universal and most of the older people have lost some or most of their teeth as a result of this disease. The periodontal disease is a somewhat atypical periodontitis simplex which is usually established in mild form early in life, often before the age of twenty. It progresses slowly and without the usual symptom of marked inflammatory reaction of the gingivae. By the age of forty the periodontal disease is usually present to a medium degree and is easily recognized and by the age of sixty some or most of the teeth have been removed.

4. In a previous report of a physician it was suggested that excessive wear of the teeth was a prominent cause of dental disease among the Eskimos. Of the 278 mouths examined during the present investigation only four non-vital teeth, with excessive wear as the apparent cause of death of the pulps, were observed. Wear of the teeth is a striking feature of the evolution of the Eskimos' dentition between youth and old age, but wear is rarely a direct cause of pathologic conditions. In the main, wear of the teeth is a normal physiologic process which is markedly insufficient among modernized humans and possibly somewhat excessive among the Eskimos.

5. The potency of the salivary enzyme amylase was usually observed to be high among the Eskimos. This finding parallels that of Box on other caries-immune groups in Toronto.

6. Pigmentation of the alveolar mucosa



Port Harrison
Isaacutang (M), Age 30. Caries immune. Very early chronic periodontitis simplex. Lives nomadic life.

is frequent and often marked. This condition is rare among the white races and increasingly more common among the darker races. The findings in this connection may be of interest to the anthropologist, studying the origin of the race.

7. The form of the teeth is exceptional and may also be of interest to the anthropologist. A few teeth were extracted during the course of the investigation and these are being kept for further study. Arrangements have also been made to have all teeth which need to be extracted at the hospitals at Chesterfield Inlet and Pangnirtung placed in formaldehyde solution and sent out next summer. Further study should be made of the teeth in the Eskimos' skulls at the Royal Victoria Museum at Ottawa.

8. Many of the middle-aged or elderly natives have badly infected mouths which cause them discomfort and possibly ill-health. A well organized plan would allow a dentist accompanying the Nascopie each year to alleviate suffering from dental causes among the natives and also to continue the study instituted this year.

9. An excellent opportunity exists for the study of the causes and control of dental disease among this splendid race. The degeneration of the dentition of the Eskimos of the Eastern Arctic has already begun but the changes in dietary habits which appear to be the cause for this degeneration has not been long established and should be relatively easily changed. Doctors Melling and Orford of Chesterfield Inlet and Pangnirtung, respectively, expressed keen interest in any plan of dietary study that might be undertaken. The representatives of the Hudson's Bay Company whom I met have shown a real interest in any plan to improve the health of the natives and it is known that the company policy in general favours a plan with this aim. The isolation of the various posts would allow a controlled observation of a dietary study to be conducted on a group of humans of all ages. Such an opportunity is unique. There are nutritional experts in Canada who would enjoy co-operating in such a plan as has been mentioned.

10. It was my pleasure to perform palliative dental treatment for the white people employed in some of the posts. This service has greatly decreased the pain and inconvenience they would otherwise have suffered. The white people stationed in the Eastern Arctic for terms of two to five years would greatly appreciate the annual visit of a dentist who

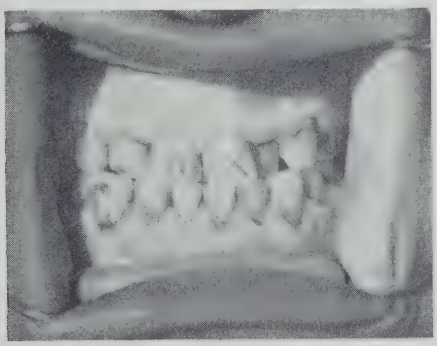
Port Harrison
Isaacutang (M), Age 30. Caries immune. Very early chronic periodontitis simplex. Lives nomadic life.

could at least render such emergency service.

The above indicates some of the observations resulting from the study, and the following paragraphs are an outline of the basis of investigation.

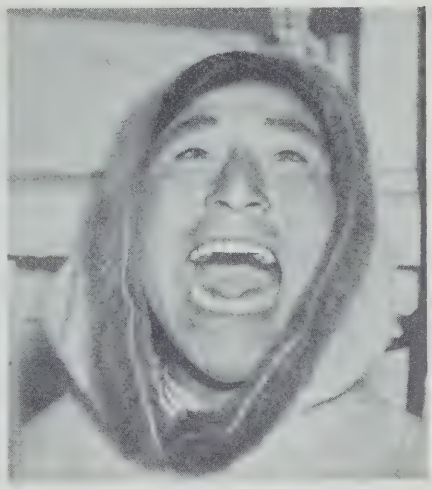
The excellent development and almost complete health of the oral structures of the primitive Canadian Eskimo is nearly a traditional ideal with the dental profession. However we expected that the few refined foods that have been available to the natives of the Eastern Arctic since the introduction of fur-trading would have induced early degeneration. The research department of the Faculty of Dentistry, University of Toronto, was therefore pleased to accept an invitation from the Department of Mines and Resources of the Canadian government, to have a member of the staff accompany the Eastern Arctic Patrol of 1939. The Faculty was honoured that the National Research Council, which acted in an advisory capacity to the Department of Mines and Resources, directed an invitation to us.

Our research group were particularly interested in observing the degree of degeneration of the dentitions in the various posts as it relates to the fairly simple



Port Harrison

Isa (M), Age 25. Caries immune. Very early chronic periodontitis simplex. Lives nomadic life. Lingual position of lateral incisors a common abnormality.



Hebran

Wilson Simigak (M), Age 19. Caries immune. Shows well developed dental arches.

variations in the kinds and amounts of refined or "white man's foods" consumed. A correlation of such findings should indicate the relative importance of the harmful agents or practices and should allow sound suggestions for control of the dental disease. Information gained in this study might be of tremendous value to the "civilized" races. Our Faculty was also interested in extending a study instituted by Box on the influence of the salivary enzyme amylase to include the almost caries-immune Eskimos group.

The procedure for this study was based on the division of the effort into two phases.

(a) General dental survey of a cross-section of the population available at each post at the time of the ship's arrival. All easily observable conditions were noted on charts.

(b) A more intensive study of a smaller number at each post. The following materials were obtained for later examination.

1. Samples of saliva.

Lake Harbour

John 12-14 years. Typical malformation which results from "civilizing influences" in diet.

2. Smears for microscopic study.
3. Impressions of teeth and jaws.
4. Still photographs and colour movies.
5. Descriptions of the foods, cooking habits and eating habits.
6. Samples of some foods.

The exceptional amount of ice and fog that impeded the maintenance of the schedule for the trip allowed a stop of only a few hours of working time in some posts and the number of persons examined was disappointingly small. However, they seem to be representative groups and the element of error resulting from using this number as a basis for computation will likely not be unduly large.

The table below shows the number of natives examined at each post.

	Males	Females
Hebron	21	4
Port Burwell	4	7
Lake Harbour (2 visits)	38	10
Wakeham Bay	8	9
Sugluk	10	5
Dorset	3	13
Wolstenholme	9	3
Southampton	14	3
Port Harrison	2	
Chesterfield	23	12
Fort Ross	13	8
Arctic Bay	6	7
Pond Inlet	6	10
Pangnirtung	9	12
	176	103

No natives were examined at Churchill because of the very small portion of the population which they constitute and the inaccessability of their camp. The four natives at Craig Harbour are of Greenland origin and have spent much of their lives as post employees. It seemed that the findings would be irrelevant to the study and they are not included.

October 5th, 1939.

Medical Arts Building, Toronto.

CANADIAN DENTAL ASSOCIATION AND ONTARIO DENTAL ASSOCIATION, ROYAL YORK HOTEL, TORONTO, ONTARIO, MAY 27-29,1940.
(Dentists from the United States and from all parts of Canada will be welcome.)

AMERICAN ACADEMY OF PERIODONTOLOGY, CLEVELAND, OHIO, SEPTEMBER 5-7, 1940.

AMERICAN DENTAL ASSOCIATION, CLEVELAND, OHIO, SEPTEMBER 9-13, 1940.

AMERICAN DENTAL ASSISTANTS ASSOCIATION, CLEVELAND, OHIO, SEPTEMBER 9-12. HEADQUARTERS CLEVELAND HOTEL.
(Lucile S. Hodge, Gen. Sec., 401 Medical Arts Building, Knoxville, Tenn.)

*Observations on the Position of the Papilla of Stensen's Duct**

by W. F. WALFORD, Montreal, P.Q.

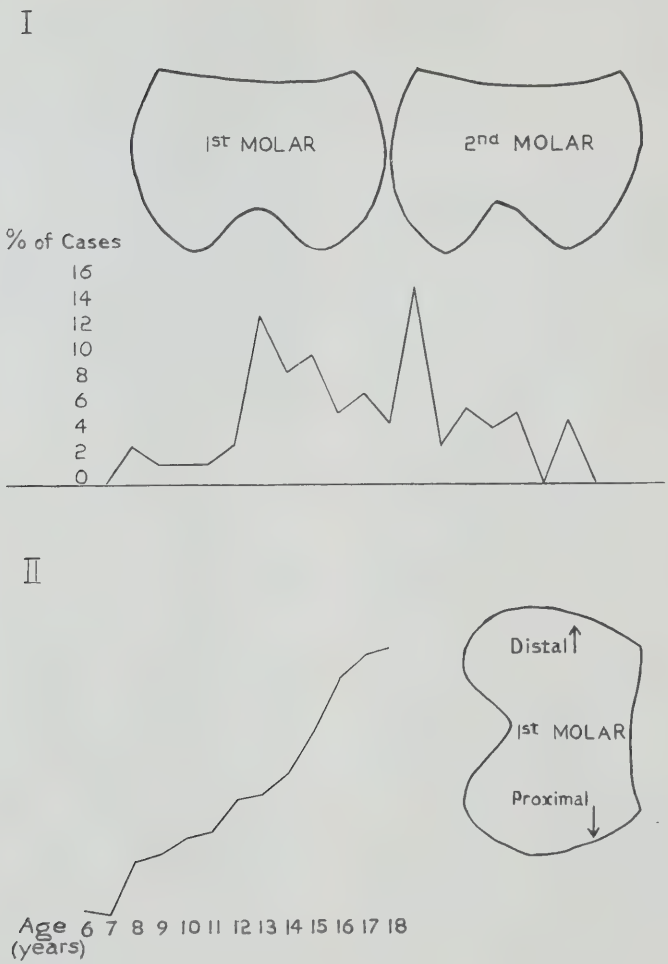
IT HAS long been noted in making oral examinations that salivary calculus is most marked on the maxillary teeth over the clinical crown of the first molar. An explanation of the location of this encrustation from the parotid saliva seemed necessary, since the papilla of Stensen's duct, according to various sources[1], is opposite the maxillary second molar.

With the purpose of investigating this problem, an examination of patients presenting themselves at the Dental Clinic, Montreal General Hospital, was carried out. Efforts were made to determine whether there was any variation in the position of the papilla as between (1) different individuals, (2) opposite sides of the same individual, (3) the sexes, (4) different age groups, and whether its position has any racial significance. Outdoor patients were examined in sequence without any selection being made beyond rejection of all those in whom the remaining maxillary teeth were not sufficient to serve as landmarks for positional relationships. Out of approximately 350 patients 100 were found suitable for the investigation.

The position of the duct was then determined by direct observation and by x-ray. In the direct observation method the patient was made to close his mouth and relax all his facial muscles. The cheek opposite the papilla was then pressed against the teeth and while pressure was maintained on the cheek the patient's mouth was gently opened and his lips retracted until the exact position of the papilla on the dental arch could be seen and noted. In the x-ray method a bent metal wire probe was passed into the duct and the patient closed his mouth and relaxed while a dental x-ray was taken. In a few cases, as a check on these methods, lipiodal was injected into the duct and a full lateral x-ray was taken. With all these methods care was necessary to ensure that the cheek was flaccid, for slight contraction of the musculature immediately brought about distal retraction of the papilla, but when this precaution was taken they were all found to yield approximately identical results.

The results of this investigation are set out graphically in Fig. 1, Graph I. From this it can be seen that the position of the papilla with relation to the teeth varies considerably. Actually the highest single percentage lies opposite the proximal edge of the second molar, but a second maximum on the curve occurs opposite the centre of the first molar, and the arithmetical mean of all the cases investigated lies opposite the distal cusp of the first molar. The usual position of the papilla therefore appears to be opposite the distal cusp of the first molar. There was a variation in the position of the papilla of 17.3 mm. in different males and 11 mm. in different females, and as much as 6.5 mm. in its position on different sides of the same individual. The average proximo-distal diameters of the teeth as given by Black[2] were used in calculating these distances. The papilla was further distal, in the adult females examined, than in the adult males.

* From the Department of Anatomy, McGill University, and the Dental Clinic, Montreal General Hospital.



In Fig. 1, Graph II, the mean position of the papilla in young subjects of different ages up to 18 is shown. Perhaps the most interesting feature of these observations from an orthodontic standpoint is that, if the position of the papilla is considered stationary, then we must accept the fact that the maxilla grows forwards approximately 1 cm. between the ages of 6 and 18. Assuming that the development of the maxilla is uniform, then the papilla moves distally 1 cm. during that period.

As regards correlation of racial extraction and positional relationship, it was noted that in those cases where there had been early loss of teeth anterior to the second premolar, the position of the papilla was markedly further distal. This is probably due to the proximal "drifting" of teeth that occurs following such loss. Of the group of 100 patients examined at the Clinic, this early loss was most common in those born in the British Isles, in whom the presence of a full or nearly complete dentition was a rarity,

whereas those of Central European birth had in most cases a well developed arch, a normal occlusion and usually an excellent dentition. Again, it was noted that the English-speaking native Canadians in the group possessed dentitions superior to those of the French-speaking native Canadians. Consequently, no conclusions could be drawn as to the existence of any relationship between racial extraction and the position of the papilla.

Conclusions

1. The papilla of Stensen's duct is usually opposite the distal cusp of the maxillary first molar in the adult, but the position may differ from one individual to another and even on opposite sides of the same individual. The position of the duct varies more in males than in females, but no significant racial differences were noticed.

2. The position of the papilla varies at different ages until maturity. This appears to be due to the fact that in the course of development the maxilla grows forwards to a greater extent than does Stensen's duct.

3. The position of the papilla with relation to the occlusal plane of the teeth is very inconstant.

I am greatly indebted to Dr. W. G. Leahy, Dental Clinic, Montreal General Hospital, for assistance in the actual examinations, and to Professor C. P. Martin, Department of Anatomy, McGill University, for advice and suggestions in the prosecution of this research.

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Dentistry's Centennial 1840-1940

Dentistry, as a profession, has reached its hundredth anniversary. It is quite fitting that the dental profession of Canada give proper recognition to the passing of these first hundred years and in so doing pay tribute to those who, by their achievements, have been responsible for the advancement of our chosen profession to its present high status.

The C.D.A. through its Public Relations Committee is co-operating with all provincial associations to promote centennial banquets during the biennial meeting of the C.D.A. which is being held in Toronto in May.

The Canadian Dental Centennial Committee has decided that the official date of these Canadian banquets will be May 27. We urge every dentist to keep this in mind and co-operate with his local association in making these banquets an event worthy of the occasion.

To Every Dentist

If you have any information relating to dentistry or dentists that in your opinion might be helpful in preparing a comprehensive history of the dental profession, you are hereby asked to send particulars of same to Dr. Lapp. Such interesting items as "It was a dentist who first—etc., etc.," would be very helpful.

Remember — This is *your* centennial celebration, *your* opportunity to help.—DO IT NOW.

Dr. J. S. Lapp, Chairman,
Canadian Dental Centennial Committee,
1 Bellefair Avenue, Toronto.

Reminiscences of C.A.D.C., 1915-20

by MAJOR CHARLES E. McLAUGHLIN, R.O., A.D.D.S., C.A.D.C., M.D. No. 6,
November 1918-April 1920*

THE happiest moments of our lives are day dreams of anticipation and memories. "When to the sessions of sweet silent thought I summon up remembrance of things past."—Shakespeare.

During a recent 3000-mile vacation auto trip through the U.S.A. and Canada I had the pleasure of spending a few days in Ottawa, visiting old comrades and recounting old times. The war activities in Ottawa and in my own city of Halifax reminded me of the War 1914-1918. I spent a pleasant two hours with Col. Lott, Chief Dental Officer.

In musing one becomes romantic; a vivid vista of the past appears as an inspired revelation of a happy occasion in Ottawa 1915, the organizing of the Canadian Army Dental Corps by the late Dr. J. Alexander Armstrong of Ottawa and Dr. O. K. Gibson, also of Ottawa, Second in Command, affectionately known to us all overseas as "Gibby," an officer of great ability and energy. I was glad to meet Col. Gibson again in Ottawa, and to note that he has lost none of his "pep" and enthusiasm. The genial and competent Chief Dental Officer, Dr. D. D. Wilson, Department of Pensions and National Health, an original of the C.A.D.C., was out of town. The first steps in the organization of the Corps were taken by Dr. J. Alex. Armstrong, a tall distinguished looking gentleman of striking personality, a personal friend of Sir Sam Hughes Col. Armstrong has passed on.

"Faithful below, he did his duty;
But now he's gone aloft."

Sir Sam Hughes, Minister of Militia, stated Oct. 19, 1916, "Canada has given an example in this dental matter upon which Great Britain, France, Italy and Russia have been pleased to model."

In April 1918 The Journal of Association of Military Dental Surgeons of the United States published the following: "A few of the things we can learn from the Canadians: The Canadian Army Dental Corps has had three years' experience in actual war conditions. The development during this period has been more rapid than in half a century of a world at peace. Canada, with her three years' experience, has many things to teach us if we are not too proud to avail ourselves of advice and counsel."

General Sir Arthur Sloggett, head of the Medical Service in France, personally congratulated me on the good work of the Canadian dentists.

The first Detachment of the C.A.D.C. sailed from Montreal on June 24, 1915, on board R.H.S. Missanabie for England, arriving at Plymouth July 3. The nominal roll consisted of one hundred and three Officers, N.C.O.'s and men. The one thousand nine hundred and fifty soldiers on board the Missanabie before the departure were honoured by the presence of Major General the Honorable Sir Sam Hughes, Minister of Militia, who greeted both officers and men as they went on board.

A dental clinic was established at the

* Major McLaughlin holds a Grade "A" certificate (Infantry) from the Royal Military School at Fredericton, N.B. He is a Fellow of the Royal Institute of Public Health, London, England; Secretary of the British Empire Alliance and member of the North British Society. He served in England, France, Belgium and Canada, 1915-1920.—EDITOR.

MAJOR CHAS. E. McLAUGHLIN, C.A.D.C.

beginning of the voyage. The officers with their orderlies took turns in operating upon those who needed the services of a dentist.

The C.A.D.C. officers were the first to prepare a program of sports. The preliminaries of the various races commenced on June 30 and the finals were run off on Dominion Day. "The most important event was the tug-of-war in which after four hard pulls a team of eight men from the orderlies' platoon defeated the team chosen from the batmen. Then the officers, with Captain Mallory as their anchor, defeated the orderlies' team." The writer had the honour of being one of the victorious officers' team.

"A unique gathering which was proposed and arranged by a C.A.D.C. officer, was a meeting of Free Masons for mutual instructions on the evening of June 28. Various parts of the Empire were represented at this meeting, but of the fifty-five members present, most were connected with lodges from all parts of Canada.

"An excellent comparison was made between the principles of the Masonic Order and those of Christianity in the sermon of divine service on Sunday morning, June 27. The order of the service was that of the Church of England, and was conducted by the Chaplain of the 39th Battalion who also celebrated Holy Communion at 7 a.m."

The badge of the C.A.D.C. was originated by Col. Armstrong, arch topped with crown on maple leaf. The arch is taken from the Masonic Order, the Sublime Degree of the Holy Royal Arch Masons, symbolical of the mouth, the chief entrance to the human body, man made in the image of God; figurative of the entrance to the Holy of Holies in the Temple of Jehovah, and analogous to the medical badge, which is a serpent set upon a pole.

"And the Lord said unto Moses, make thee a fiery serpent and set it upon a pole: and it shall come to pass, that every one that is bitten, when he looketh upon it, shall live.

"And Moses made a serpent of brass, and put it upon a pole, and it came to pass, that if a serpent had bitten any man, when he beheld the serpent of brass, he lived."

The regular daily routine began with Reveille, which sounded at 6 a.m. From 3.30 to 4.30 p.m. the C.A.D.C. were allotted the whole starboard promenade deck for drill, physical exercise and sport. First, the roll was called, and then the whole Corps, led by the Adjutant, repeated the Lord's prayer, after which one of the prayers authorized for the Active Militia was read. Next, the drill for the batmen and orderlies was carried on while the officers were marched off to the splendidly equipped gymnasium. Here they rode on horseback, camel and bicycle, and took further exercise rowing, massaging and boxing.

Dinner was enjoyed more than the other meals for during its course and the remainder of the evening the "Missanabie" orchestra rendered the very best of classical as well as popular music. On several occasions fine concerts were given by the 39th Battalion brass band.

Splendid food, English custom, was served five times a day. "Marconigram," a daily wireless newspaper, was enjoyed by all. A wireless message which made everyone feel a little uneasy was that the German Submarine U31 had torpedoed and sunk a Donaldson liner. This news, however, did not make a soul waver in his faith in the power and watchfulness of the British Navy.

It was a beautiful day, Saturday, July 3, when the Missanabie steamed slowly through the narrow, heavily mined entrance to Plymouth harbour. I shall never forget the thrill of seeing England for the first time. I dropped into reverie. In musing I could see Sir Francis Drake on the green hills of Plymouth shore finishing his game of bowls, before sailing out to meet and defeat the Spanish Armada in 1588. This was 1915 and we could see from our ship men playing bowls on the same spot where Drake had played 327 years before.

Saturday afternoon we were amused by a large number of porpoises playing about our ship. Young boys on training ships, man-of-war, and sailing ships sang to us, "Oh Canada."

Sunday morning we were taken ashore and put on a train for Folkestone, Kent. We were thrilled and amazed at the beauty of the country. We travelled through this fairyland all day Sunday, arriving in Folkestone at 4 a.m. Monday.

The officers were billeted at the Wampach Hotel, a magnificent marble structure. Folkestone is a city about the size of Atlantic City, N.J., but much more beautiful, an English fashionable summer resort. At the Wampach Hotel, dinner was at 8 o'clock with everybody in evening dress, the ladies adorned in beautiful gowns and jewels.

My roommate was the noble and extraordinary character, Capt. William Stuart, over sixty years old—he looked forty. (Fig. 1.) He tried to go overseas as a combatant but was turned down on account of his age. He was a millionaire lumber king, a famous Bisley team rifle shot and when past eighty years of age he dropped dead while laying the wreath at Ottawa on Armistice Day. So anxious was he to do his bit overseas that he enlisted as a Sergt. in the C.A.D.C. Major-General Hughes spotted him on the Missanabie at Montreal, made him a Captain on the spot, and he was put in charge of transport.

It was after 4 a.m. before we got to bed. Capt. Stuart was up at 8 a.m. and went down to the beach after having breakfast. He came back in a hurry to our room and said, "Get up Mac, the Angels of Mons are swarming all over the beach." I got up, dressed, and went down to the beach with Capt. Stuart. I must confess I was surprised. There were swarms of beautiful women in abbreviated bathing suits in silver and gold

cloth, etc., lovely English, French and Belgian maidens. America had not adopted this style of bathing costume in 1915. Needless to say the girls were very friendly to the lonesome C.A.D.C. boys so far from home; we all had a glorious time. After a few days of romance and heaven we were posted to various military camps. Before getting down to serious work we were given a week's leave to London, the world's largest, wealthiest and most interesting city. I was attached to the 7th Brigade Canadian Field Artillery, C.E.F., Otterpool, Kent, England.

Our O.C., Col. Stuart, was a dentist from Lethbridge, Alberta, and before the end of the war rose to the rank of Major-General. Col. Stuart was very kind to me. I had my own horse and was given riding lessons, along with other officers, by an English cavalry officer. We had many delightful rides over England's lovely countryside. Nearby was Lord Glenconner's castle overlooking Romney Marsh, the place where Julius Caesar first landed in Britain. One Saturday afternoon the Medical Officer, Capt. Farrel, and I rode over to the castle, hitched our horses and walked into the grounds. We passed over the draw-bridge of the moat which took us to the yard of this magnificent ancient castle. There were peacocks, flowers, everything to delight the senses. I had just taken out my camera to take some pictures, when a door of the castle was opened and out stepped a magnificent looking white-haired man, in red coat, black velvet breeches, white silk stockings and silver buckled black shoes. Capt. Farrel whispered, "Here's where we get H— let's beat it." I replied, "We are in Officers' uniform; it would be a disgrace to the Canadian Army to run away." With fear and trembling we watched him advance toward us, expecting a "bawling out."

Figure 1.

Patriot, Philanthropist, Sportsman, beloved Capt. "Bill" Stuart, Transport and Supply Officer, C.A.D.C. Over-Seas 60 years young when the picture was taken at Folkestone, England. Ended a romantic life in a dramatic death, past 80, while laying the wreath at Ottawa, Armistice Day.

To our surprise he bowed graciously and said, "Lady Glenconner would like you gentlemen to come in for 4 o'clock tea." Lady Glenconner and her lady-in-waiting, Miss MacDonald of Inverness, Scotland, met us at the door. Lord Glenconner was away on duty in London. We were amazed at the grandeur and the inspiration of the castle. We were first taken through a long hall, on the wall of which hung the portraits and arms of the Glenconners—they had fought in every war of England's since the Battle

of Crecy Aug. 26, 1346. Premier Asquith spent his week-ends there. Lady Glenconner showed us a hole in an oil painting and a mark on a beautiful mahogany table caused from stones thrown by suffragettes at Asquith through a window at the end of the hall. Lady Glenconner asked us if our mothers were living and if we were married. We replied in the affirmative. She gave us flowers to send to our mothers and wives in Canada. She showed us the rooms of her boys at the front in France (one had been killed), also the trousseau of her daughter, Lady Kathleen Tennant, soon to be married to Lord Rutland, (as men we were not much interested in the trousseau). In one corner of the great hall was the battered armour of the Glenconner who fought at Crecy when 30,000 English soldiers under Edward III defeated 100,000 French under the command of the Count of Alencon and the King of Bohemia. When in France I visited the battle ground, a village in the French Department of the Somme on the Maye, 12 miles north of Abbeville.

After we departed Capt. Farrel remarked, "No wonder generations of Englishmen continue great, surrounded by ideals and traditions of such a glorious past." Another week-end we visited the Saltwood Castle and were shown the room where the four knights, Reginald Fitz-Urse, William de Tracy, Hugh de Marville and Richard Brete slept the night before proceeding to Canterbury and killing Thomas à-Becket Dec. 29, 1170. With their swords drawn they rushed into the Cathedral and killed him on the spot, with repeated wounds, all of which he endured without a groan. The scene of "The Martyrdom" of Saint Thomas is in the North West Transept. In the same castle we were shown a room frequently occupied by Queen Elizabeth, the Virgin Queen of England. On horseback we followed the same road to Canterbury taken by the Knights about twenty miles from the castle.

In August we visited Scotland, land of romance, pathos, pibroch, heather, poetry, bonny lasses and brave men; beautiful Edinburgh with its Holyrood Palace, The Castle, Mons Meg, "Little bit of Canada" soil from Nova Scotia (New Scotland). I saw the Regalia of Scotland, the battle axe of Robert Bruce, Bannockburn, Stirling Castle, the Trossachs, the Pass of Balmaha, Loch Lomond, Loch Katrine, the Cave of Robert the Bruce and the Spider, the homes of Sir Walter Scott and Robert Burns, etc. I visited the birthplace of Burns on August 4, 1915. The attendant showed me a number of Robert Burns poems in his own handwriting and a number of his love letters, one to Highland Mary, claimed to be the greatest love letter ever written.

On Friday, Oct. 13, 9.30 p.m., a dark drizzling night, we were bombed by a "Zep"; they dropped nine bombs on us killing 16 men and a number of horses. The Zep was on its way to London, spotted the lights in our tents and paid us an official visit teaching us to keep our lights hidden at night. I went to France with the 7th Brigade Canadian Field Artillery, saw much fighting in France and Belgium, and later at the request of the medical authorities and by permission of Col. Armstrong served as Dental Officer with 1st, 2nd, 5th and 10th Field Ambulances and No. 2 Canadian General Hospital, 1800 beds, Le Tréport, France. Besides our hospital at Le Tréport there were three British, Nos. 3, 47 and Lady Murray's and one French. Col. Andrew Croll, M.D., F.R.C.S., F.A.C.S., O.C. of surgery at No. 2 Canadian General Hospital and I soon became fast friends. He invited me to room with him and to give anaesthetics for him.

He helped me out in numerous operations on face and jaw. Our Oral Surgical Clinic in a few months became famous; was visited by many famous surgeons, Lord Moynihan, the world's greatest abdominal surgeon, Sir Frederick Treves, Bart., G.O.V.O., C.B., L.L.D., F.R.C.S., and General Sir Arthur Sloggett, head of the Medical Service in France and others.

We "entertained angels unawares." Lady Murray, one day, asked if I would attend one of her personnel who had a toothache. I replied that I would be delighted. An attractive young lady soon came over to my office with a front tooth which had been devitalized and the root canal filled with cotton by a London dentist. I did considerable work for her over a period of weeks. She gave me her name as Gordon-Lennox. I called her Miss Gordon-Lennox. She said the Canadians were grand. She thought she would come to Canada after the war for a husband. I replied that it was too bad I was married; if I were single I would take a chance.

A young English officer had been shot through the jaw with a rifle bullet and was taken to Lady Murray's Hospital. He was sent from there to me for treatment. I applied splints, etc., and he came to my office every day or two for adjustments. After I had finished treatment, one day we were talking when Gordon-Lennox came in; he jumped to attention. When she went out he said to me, "What is Lady Gordon-Lennox getting done?" I was dumbfounded; he informed me that her father was one of the biggest "Pots" in England, the Duke of Richmond. This English officer informed me that Lady Gordon-Lennox got up at 5 a.m. and scrubbed out the surgery, etc. Other young ladies of the nobility drove ambulances to the train and carried wounded men off in stretchers. (Fig. 2). The matron of the hospital was a carpenter's daughter. These untrained titled young ladies had to do the work of novices and take orders from the nurses. They did their "bit" of their own free will and enjoyed it. When Lady Gordon-Lennox came again to the office I said "Good morning Lady Gordon-Lennox, I am afraid I cannot do any more work for you. I am only a poor plebeian, I am not accustomed to aristocrats like you." She looked surprised, then asked who had informed me of her identity. I replied, "A little bird." She replied, "I was enjoying it so much, I am sorry you found out. I suppose that now you will be very formal—now that you know who I am. Do you mind if I bring my friend, Lady Howard, over as a patient?" (sister of the present Duke of Norfolk, who had charge of all arrangements for the coronation of King George VI and Queen Elizabeth). The father, the old Duke, was living when this took place. Lady Gordon-Lennox later became one of Princess Mary's bridesmaids. I had a considerable number of the nobility for patients. For Lady Murray I repaired a lower left four tooth bridge. Her dentist charged her 100 guineas. Lord Poulett, a Captain of the Guards, who was another distinguished patient of mine, invited me out to dinners with him, etc. They were the nicest and most appreciative patients that I have ever attended.

Capt. Mallory, C.A.D.C. of Toronto, had similar experiences with the nobility. After the war he opened an office in London and was very successful. He dropped dead from a heart attack while playing golf with a duke.

After ten months in France leave was granted, when I visited Stratford-on-Avon, Shakespeare's Home, was shown the signatures of famous poets written with a diamond on window glass, the

Figure 2.
Young lady of the nobility driving ambulance, winter 1917, Le Tréport, France. They greased and serviced their own cars, making it possible for more men to serve in the trenches.

of Dunloe, land of the Banshee, Ross Castle, Muckross Abbey, and returned to Southampton in time to take leave boat to Le Havre, France. It was a stormy, dark night, and the 150 miles of water was very rough. Nearly everyone was seasick. I was on deck when someone slapped me on the back and said "Hello Canada!" I turned; it was an Australian officer. He said, "I believe you and I are the only ones on deck not seasick. Have you heard about the latest dance? The Wilson hesitation waltz—one step ahead, two steps back, hesitate and wait for the 'Note'." The U.S.A.

Figure 3.
Sons of the Empire on leave in Killarney from Australia, New Zealand, and "Yours Truly" Canada.

room in which Shakespeare was born, walked the path travelled by Shakespeare two miles away to Anne Hathaway's Cottage, sat on the oak bench before the fireplace where Shakespeare and Anne held hands and romanced, and reclined under the tree where Shakespeare and Anne pledged their betrothal. After this I visited Wales, Killarney, (Fig. 3), Blarney Castle, (kissed the Blarney Stone), Kate Kearney's cottage, The Gap had not entered the war at that time.

It was Hello England! Hello Scotland! Hello Ireland! Hello Canada! Hello Australia! Hello New Zealand! Hello India! Hello South Africa! Britannia had called her sons together for war.

Again Britannia is calling—her sons will answer.

November 23, 1939.

A Report On a Case of Hypertrophied Gum Tissue

by C. D. NEWBY, B.A., D.M.D., Kelowna, B.C.

EVERY dentist in the course of time encounters a variety of problems incidental to his practice. In the hope that what I have confronted and attempted may be of interest to my fellow practitioners, I shall endeavour to present a report on a case of hypertrophied gum tissue. In doing so, I am fully aware of the fact, that it is not exactly a scientific contribution, because medical and dental literature has very little to offer on the subject. However, due to its rare and unusual occurrence I trust that this presentation will be helpful and of interest to the profession.

Case History:

The case is that of a young man, 19 years old, 6 ft. 2 in. tall, 185 lbs. in weight, dark complexioned, of rugged bony stature, a Canadian by birth but of definite Scottish ancestry.

Two years ago said patient presented himself at the office with a mouth full of teeth covered with hypertrophied gum tissue, (Fig. 1). He never remembers having seen either his deciduous or permanent teeth, whole or in part, save for an occasional outcropping. As to whether baby teeth were present and what became of them, I leave to your conjecture, but it is reasonable to suppose that they were resorbed in the normal way. The patient reports that he had an aunt with a similar condition. She had her case treated surgically without the loss of teeth in Edinburgh but with unsatisfactory results.

Truly, here was a young man handicapped in his daily work, by his appearance, a social outcast, shunned by the opposite sex and tormented by his classmates who called him the "local baboon". The surprising thing to me is, that the boy didn't develop an inferiority complex. However, apparently he was big enough in mind and heart to wait his time, with the hope that his condition would eventually be taken care of.

Examination:

A full mouth x-ray examination revealed 28 teeth present in more or less regular alignment, (Fig. 2). Closer examination of the x-rays will reveal the fact that the teeth are fully developed and embedded in bone comparatively normal in structure and height. A visual and digital examination indicated that the bony tissue extended abnormally laterally (lingually and buccally) from the

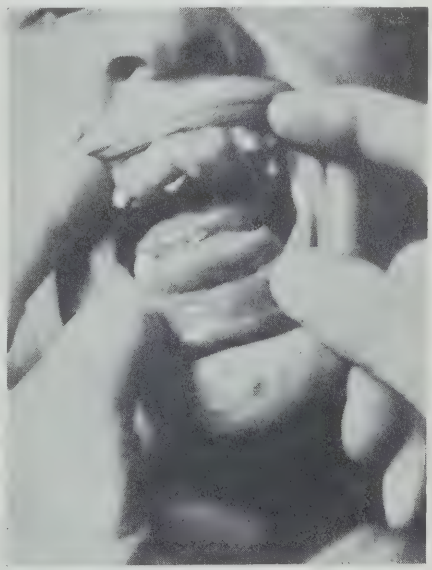

Figure 1.

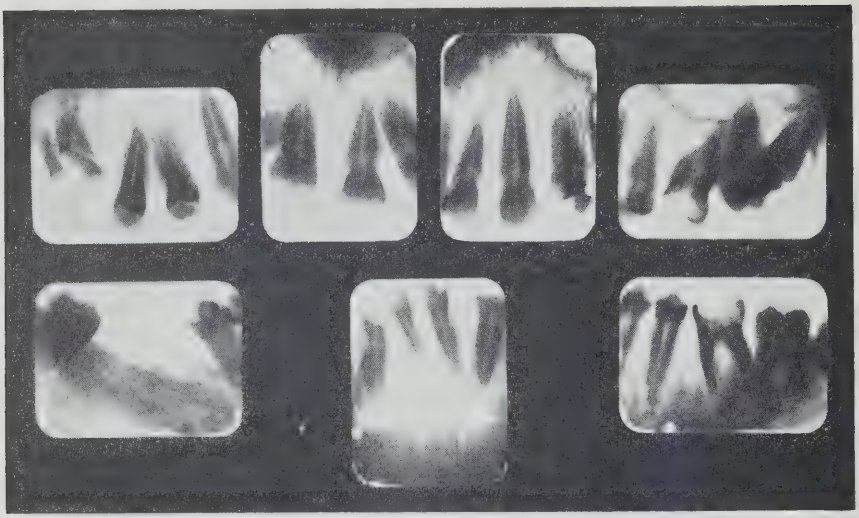

Figure 2.

crest of the ridge. The gum tissue itself which covered the teeth was tough and calloused and offered little or no discomfort to the patient in whatever mastication was performed. On different occasions I have seen him bite into an apple and chew it up without apparent disability.

The greatest amount of gum coverage was in the anterior region of both arches, as the stone casts and first photograph will reveal. It was noted too, that wherever a tooth became exposed it decayed quickly.

Microscopically hypertrophied tissue presents a picture of delicate wavy bundles of fibrous tissue with interspersed areas of myxomatous degeneration. The mucosa is practically normal save for a slight increase in the number of round cells.

Accidental Clue to Procedure:

Two years ago I had occasion to remove a lower left first molar to give the patient relief from a toothache. Unattended the wound healed beautifully, the gum shrinking down to unbelievable proportions——almost back to a normal ridge relation.

This in itself gave me a clue as to my subsequent procedure. It occurred to me, that, if I could get all the teeth out and remove the superfluous tissue, I could prepare the mouth for full dentures. This is exactly what was done, although it took five different operations spread over a period of a year and a half before the desired result was achieved.

First Sitting:

For the first visit we decided to tackle the lower arch, with a local anaesthetic, in the office. The gum was incised over the crest of the ridge and reflected to expose the teeth. The teeth were then removed including the two deeply submerged unerupted third molars. Following this, some of the superfluous tissue on the anterior region only, was removed, the incision stitched, the patient given post-operative instructions and dismissed to await results.

Second Sitting:

A month elapsed before we attempted the upper half of the mouth. On this

occasion we hospitalized the patient, it being the more difficult of the two arches. Avertin was the drug of choice and on this occasion, as on the one following, I was assisted by Dr. Stanley Henderson, of Kelowna.

As in the lower, the crest of the ridge was incised laying bare the teeth. Extraction followed, some were like impactions, others hard to locate, especially the root tips of badly decayed molars. Superfluous tissue was removed, using the electric cautery for same. The patient remained in the hospital for a period of two days and then returned home and to work, reporting at the office at periodic intervals to observe results.

THIRD SITTING:

Three months transpired with an accompanying unbelievable transformation taking place. However, considerable reconstruction of the jaws appeared necessary before a denture foundation could be hoped for. Accordingly, an alveolectomy was performed, under a general anaesthetic, on both arches. On this occasion the cautery was invaluable and I've since learned that hypertrophied tissue does not regenerate when removed in this manner. (Brophy.)

FOURTH SITTING:

Months elapsed and as the gums healed, shrinkage left a few undesirable projections or nodules which of necessity would have to be removed before a suitable foundation or contour for dentures could be established, (Fig. 3). Accordingly, more resection was done but under a local anaesthetic this time. A considerable section of the labial process of the maxilla was removed, as it was evident that the patient would otherwise show any denture material above the incisors, (Fig. 4).

RESULTS:

This completed the surgical end of the task. Conservatism was the guiding principle throughout.

Time was now necessary to secure a smooth contour and to make doubly sure that a maximum of shrinkage had taken place, that a hard dense quality of bone had developed, and above all, that no regeneration was taking place. Satisfied that I had done everything possible to secure a nice result, six months elapsed before the patient was called to the office to start his prosthesis.

The patient has been wearing his dentures quite successfully since July. To

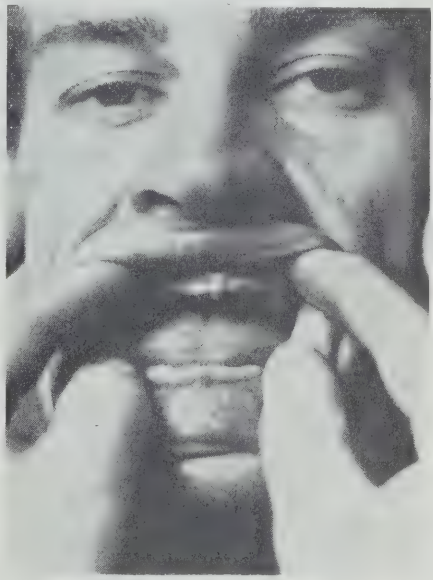

Figure 3.

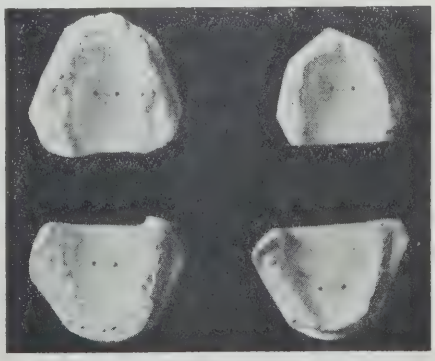

Figure 4.

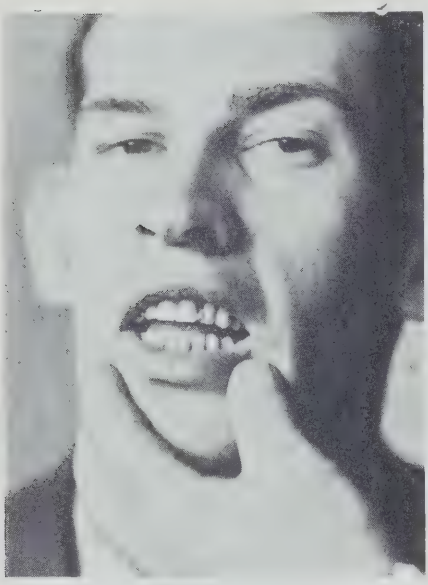

Figure 5.

date there has been no sign of recurrence. Gum shrinkage due to pressure atrophy is minimal and otherwise normal. His appearance has been stepped up 100%, and above all, the young man has a new lease on life, (Fig. 5).

AETIOLOGY:

For the benefit of those who would be interested in the aetiology of this condition, I might say, that I have consulted several authorities on the subject. While the aetiology is rather obscure, several suggestions have been advanced.

1. Dr. E. E. Starr considers that it is due basically to a nutritional disturbance in childhood, due in turn, to a disfunction of the pituitary gland associated with an hereditary perversion.
2. Grieg finds that it has never been known to appear at birth and only gives discomfort with and after the eruption of the deciduous or permanent teeth.
3. Hutchison quotes a case where hypertrophy preceded the appearance of teeth.
4. Sleep does not consider the lesions contingent on any exciting cause and says that a constitutional perversion is a developing force which precedes the advent of teeth from their genesis to their maturity.
5. B. G. Anderson reports observations of 5,000 Chinese patients in which 90% were affected.

Undoubtedly, as this indicates, it is more prevalent in the East.

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Mat Gold as a Filling Material

by T. C. TRIGGER, D.D.S., St. Thomas, Ontario

THE process of making mat or sponge gold has been known for a great many years, but the product which was obtained contained elements within themselves which brought about a disintegration of the crystal gold affecting its quality and stability as a filling material. It was not until the year 1896 that improved methods were adopted by depositing the gold by electrolysis and also by a more nearly perfect means of washing the gold after precipitation which made a filling material that was very workable and when properly condensed made an excellent gold restoration.

As a result of these investigations and

T. C. TRIGGER

because operators designed suitable plugging instruments this kind of gold became very popular as a filling material, throughout the profession. Dr. Fielden Briggs invented a set of eleven plugger points (Fig. 1.) which were very adaptable, but a more elaborate set of over thirty excellent pluggers were designed by Dr. E. De Trey for working "Solila" or sponge crystal mat gold. With many operators Dr. E. A. Royce's plugger met with considerable favour.

Sharp-pointed plugger points, which have been designed for working cohesive gold, are not indicated as they would only pierce through the mass and would chop up the gold and thus spoil the working quality. The proper kind to use should have broad file cut surfaces and the file cut surfaces should extend along the sides as well as on the end, and the points should be rounded in order to allow a rocking or rolling movement while manipulating the gold in the cavity, in the process of condensation.

The writer has been furnished with information from the Williams Research Laboratories, of which Ralph H. Elliott, B.A., Assistant Director, makes the following statement as to the relative density of various fillings made of gold: "From the foregoing tests, we can safely draw two important conclusions. The first is that mat pluggings are superior

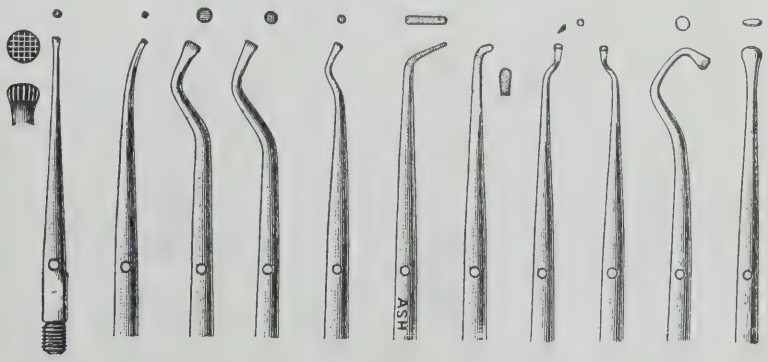


Figure 1.

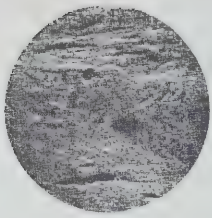


Plate I. Foil Filling x40

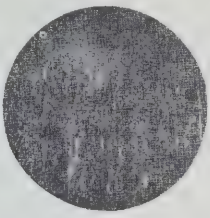


Plate II. Mat Gold Filling x40

Plate III. Cast 24K Inlay x40

Figure 2.

to foil pluggings by virtue of their density; secondly, mat pluggings are superior to 24K inlays because of their greater hardness and density," which are shown in the accompanying illustration. (Fig. 2.)

The success of this form of gold will depend greatly on the kind of cavities. It is indicated more especially in cavities surrounded by four walls; pits and fissures; cavities on the buccal and lingual surfaces of bicuspids and molars; cervical cavities; lingual pits on incisors; proximal cavities on anterior teeth involving the angle and for small pits in those teeth. However, the writer has seen operators work mat gold with marvellous dexterity and with amazing results regardless of any cavity selection. There are no short-cut methods which an operator can adopt in filling teeth with mat gold, for it requires practically the same care as it does for any other kind of gold.

In the construction of fillings of mat gold, there must be a thorough condensation of the particles of gold, which is made by a process of "cold welding," and when the pieces of gold, which should be used of small size, are condensed in place they should assume the density of a nugget of gold. This fact was proven to me by a friend, who was an assayer in the gold fields of Northern Ontario, who thoroughly tested an old filling which was taken from an extracted tooth in my laboratory, and came to the conclusion that it appeared to have the density of a pure lump of gold. In cavities where mat gold is indicated, it possesses advantages over any other form of gold as a filling material; it is excellent as a filling in deep-seated wall cavities, and when a piece of mat gold is placed in position it usually adheres readily to the seat of the cavity and walls under the pressure of malleting. Even this may be a serious fault as the operator may neglect to thoroughly condense every piece in place, which, if neglected, will result in a defective filling. When such a cavity is filled with mat gold it may be completed to shape and contour and occlusal contact by using cohesive foil.

The difference in the working qualities of non-cohesive and cohesive gold requires two distinct methods of operating, as to manipulation and condensation and the kind of instruments used.

The writer would strongly advise that the young practitioners seek a thorough practical knowledge of the manipulation of this kind of gold as well as other forms, as such materials when indicated have no equal in our selection of filling materials.

"The only security that a man can have in this world is a reserve of knowledge, experience and ability."—Henry Ford.

Practice Management

Determination to Improve

WE choose continually to place our emphasis and concentration upon technical improvement rather than to place due importance upon an understandable interpretation that will enhance the patient's concept of value and set apart a commendable public health service from one of commercial merchandising.

By our failure to apply logical thinking to the solution of these problems, we are inviting a loss of dignity and ignoring the respect associated with success. We are encouraging neglectful discharge of professional responsibilities and soliciting both professional and business mediocrity, if not oblivion.

Indeed, there are exceptions to the above mentioned general tendency among the few analytical-minded individuals who have forged ahead of the lot in solving their business problems by business methods. However, these few represent too small a percentage of the whole. Undoubtedly, the success attained by these few encourages others to seek enlightenment. This kind of progress has been retarded, however, because as individuals we resent change, both physical and mental; we like to conform to fixed habits of thought; we fear the criticism of others, should we effect a change.

Unquestionably, the first step toward improvement is a *determination to improve*; this is a matter of mind discipline. When that desire to improve is genuine, when it is nurtured by courageous intention and thought emphasis, then attainment is possible.—*Jour. of the Mich. S. Den. Soc., October, 1939.*

The earlier we learn in our professional lifetime to think less of the fellow around the corner and more of the fellow in our own office, the better off we'll all be. The fellow in our own office owes it to himself to conserve his health, he owes himself some pleasure, and he owes his family some of his company. Self-discipline, regularly enforced, is the only solution.

Attempts in communities to set up minimum fees and maximum hours for dental practice have not been overwhelmingly successful, probably because there have been no methods of enforcement of these agreements. There can be, however, an insistent and continuous sentiment expressed in dental societies on this subject, and certainly more discussions on the matter should be on the agenda of all dental societies. By constant repetition, by free and frequent debate, it should be possible for dentists to set up gentlemanly agreements among themselves regarding maximum hours and minimum fees. Nothing would probably do more to encourage non-member dentists to become members of dental organizations than a definite effort on the part of dental societies to help improve the economic lives of dentists.—Edward J. Ryan, in Oral Hygiene.

The Forum

• REDUCING THE COSTS OF DENTAL CARE

by MICHAEL M. DAVIS, Ph.D.

Chairman, Committee on Research in Medical Economics, New York, N.Y.

(Condensed from address presented before First District Dental Society of New York, February 6, 1939, and published in the New York Journal of Dentistry.)

DENTISTRY is not meeting more than 25 per cent of the present public need for dental care.

The needs of people for care from physicians are much more fully met. There are enough physicians in the United States, if they were properly distributed in proportion to population and were busy their full time, to provide all or nearly all the services that are needed by our people. But dentistry could not render all the dental service needed, even if the people actually sought it and were able to pay for it at prevailing rates. Even if every dentist were kept as busy as he could be, it is estimated that under the usual present methods of dental work in individual private practice, about three times as many dentists as we now have in the United States would be required.

There is no doubt that public demand for dental care is steadily increasing. More and more people are conscious of the need of keeping their teeth in repair and of preventing diseases which may result from dental decay. The dental profession is in the position of facing an expanding public demand for its services. But has the profession offered any program to meet this demand? In medicine, there are numerous physicians and organizations of physicians who, despite frequent opposition from medical societies, have initiated or taken part in experiments to reduce the costs of furnishing medical services or to make it easier for people to pay the costs. In the main, dentists have lagged far behind physicians in these respects. Indeed, many of the statements made by representatives of official dental organizations are of a negative character. The amount of dental work that needs to be done for all our people and the apparent cost of doing it are so great, it is said, that the task is impossible. We shall have to fall back, it is declared, upon a "program of prevention."

I am of the opinion that, in the face of a growing public demand for its services, a confession of defeat on the part of organized dentistry is not only unwise but dangerous.

A preventive program along with enlarged research into the causes of decay is, I agree, of first-rate importance. But it is not a substitute which the public will accept as an alternative to letting most adult mouths go to rot.

Suppose a certain amount of money is available from tax funds for the care of people who cannot afford private dental service. Can you imagine that the voters, among whom these potential patients or their parents are numbered, will be satisfied to have all or most of these tax funds spent for a preventive program largely for children, while painful or disfiguring dental conditions are widespread in their own mouths?

I am merely pointing out that organized dentistry cannot spend other people's money in the way it pleases—not even in those ways which, according to best scientific judgment, would be best for the other people. You will have to educate the people first—a great many people—and that will take a long time. Don't let professional people make the mistake of assuming that public demand is a

donkey which will follow the carrots held out before it.

The importance of caring for the teeth is steadily becoming clearer to the public in three relationships: to relieve pain, to maintain and promote health, and to improve the appearance.

Let me call your attention to what has happened in one branch of physicians' service—ophthalmology. About 30 years ago, the American public began to establish by legislative action a new brand of specialist, the optometrist. The optometrist cannot deal with eye disease—only with refractive errors. Consequently those who get eyeglasses through optometrists may have an eye disease which will not be detected and which could not legally be treated by the optometrist even if it were known. If optometrists were working in association with ophthalmologists, as they easily might in clinics or in large private offices, we would have especially skilled refractionists working in co-operation with and under the supervision of more highly trained professional persons who could utilize their service and keep it in its proper relationship to the total medical problem of the patient.

Why did the public, through the legislatures of all of our states, establish optometry as an independently licensed calling? Solely because there was a demand for eye service which the ophthalmologists and other physicians did not meet at a price which the public was prepared to pay.

Unmet public demand is likely to lead to an increase of dental assistants. These persons will work under supervision as dental assistants if, during the next few years, dentistry proceeds with experiments towards the expansion of service and the reduction of costs, utilizing additional trained and dentally supervised personnel. If, however, dentistry pursues the same course of mere opposition that was taken by the ophthalmologists, I fear that an independently licensed group of dental practitioners will be the result. There are examples of this in foreign countries, as you know.

Dentistry at present has in its hands the opportunity to take the lead, to maintain its professional standards and its own professional supervision of all the less trained assistants who should work under the direction of dentists.

Plans are now being conducted, and new proposals are being made by voluntary agencies and by our governments, for paying the costs of sickness through taxation or insurance. Dental care should be included as far as possible in these plans, and dentists should set themselves to see how this can best be done. The practical situation is likely to be something of this order: that an average of $5, $7.50 or $10 per capita might be available for a certain number of people. The technical question will then be: What dental service should be and can be furnished for this sum? In facing this question, you will have to consider, as I have said, the character of the people's demands as well as your professional judgment of what they ought to have. You need therefore, as dentists, to focus attention on practical experiments in the extension of dental service to people at reduced costs.

Present costs make any greatly enlarged service impracticable for any large number of people. The dental profession should set for itself, with the co-operation of public and private agencies, the task of furnishing 50 per cent additional service with the present number of dentists, and at the same time of reducing the unit cost of service by at least 30 per cent. I urge that you look foward, seriously and open-mindedly, to undertaking experiments which will test the practicability and determine the methods of attaining this goal.

There have been a very few practical

experiments in dentistry which suggest that costs could be reduced by organized dental service, so that dentists' time would be more fully occupied, some of the secondary and overhead costs would be lessened, and most of the minor work would be done by people whose time is less high-priced than the time of dentists ought to be.

The fear is expressed that standards of service will be lowered. I raise the question: What is meant by "standards"? Do you mean the quality of technical service furnished those persons who now receive more or less adequate dental care? If it is admitted that these persons include only about 20 per cent of the population, what are the actual standards of dental care for the other 80 per cent? The standards of dental care will be improved for them if they get anything more than they are now receiving. Again we come back to the pressures of public demand, and again I urge that the profession face this issue realistically. Of course I appreciate that standards must involve both the quality of technical procedures and of the materials used, and also the quantity of service. The public is best able to judge the quantitative aspect.

The practical steps to reduce costs should include experiments in furnishing service through dental clinics, with well-remunerated dentists working under professional supervision, utilizing trained dental assistants as fully as possible and taking advantage of all possible economies in the kind and use of materials. There is plenty of opportunity to try such experiments, if dentists are willing, both for self-supporting people and for the dental care of those who are in receipt of public assistance.

In the long run, the status of a profession is determined by the degree to which it meets its responsibilities to the public. Public demand for its services is a concrete expression of these responsibilities. Dentistry need not be at all afraid that such experiments as I have proposed will reduce the income of dentists or the status of the profession. Dentistry need fear only one thing: Inaction on its own part. The dental profession is now in the fortunate position of moving on a rising tide of public demand and public appreciation. If the profession will measure up to its responsibilities effectively, it need have no fear for its future.

• OLD GOLD FILLING

IN 1855 Dr. Robert Arthur, one of the first two graduates at the Baltimore College of Dental Surgery, announced a method for the use of cohesive gold foil for filling purposes. The accompanying illustration shows a gold filling inserted in a molar tooth during these early days of gold foil restorations.

Dr. M. F. Betts, of Grandview, Manitoba, extracted this tooth for a patient 78 years of age, 42 years ago, and reliable information showed that this filling was inserted by a dentist in Montreal when the patient was quite young. This would

indicate that this filling was inserted soon after gold foil was introduced to the profession and rendered splendid service for many years following.

• MANAGEMENT OF CHILD PATIENTS

ONE of the best means of managing the child dental patient is to learn to manage well-meaning but too-helpful parents, according to Dr. Walter C. McBride of Detroit, Mich.

From the viewpoint of office etiquette it is a wise procedure to dismiss from the operating room, the fearful and oversolicitous mother. Don't dismiss every parent, if you please; for every parent who fails with the behaviour problems of her children, there are countless mothers who do an exceedingly good job, and whose presence in the room helps rather than hinders.

But the parent should be excused from the operating room who narrates the illnesses, the shortcomings, the nervousness of the child sitting in the chair; the parent who endeavours to interest the patient in distractive comment or suggestions; the parent who irritates both the child and the operator with ostensibly helpful chatter, such as repeating the operator's orders of when to open the mouth and when not to rinse the mouth. There is also the parent who attempts to bolster the child's courage and endurance by prevaricative comment, as well as the one who by look or with voice inflection conveys to the child the "agony" she is enduring with him.

The dentist handling child patients, should learn that the child's mental responses are not as rapid as the adult's and that the young patient should be given time to think over a question and formulate his own answer without impatient prompting. Parents are often too anxious to present their youngsters in a pleasing light and forget the child *is a child.*

"To get along amicably one must be honest with real young patients, who cry only because they feel badly," Dr. McBride pointed out. "I frequently ask, 'Do you want me to make it hurt?', to which the answer is always an emphatic 'No.' 'All right, then' I reply, 'let's stop crying; I can't be bothered with folks who cry just because they feel like crying.' The reaction is amazing and effective."

"To employ this method one must know sufficient about the child and whether the treatment is hurting," Dr. McBride stated. "On the other hand, to say it doesn't hurt when it does, makes a child angry and rebellious."

"Employ a good measure of encouragement to the child in trouble. Admit it hurts. I remark repeatedly, 'I know it hurts but you are doing splendidly, but let's help for one or two more times and we'll be through.' Permit the child to cry out. Crying out in response to pain is a perfectly normal reaction, yet it is most amazing how much the volume of crying may be reduced by saying, 'I know it hurts, and I don't blame you for crying, but cry easily, I can hear well'."

Reasonable flattery works well with child patients, the speaker said, but he warned the profession never to shame a child patient with comments such as "He can't take it."—*Excerpt from paper given at A.D.A. Convention,—N. Y. Jour. of D.*

• SULFAMETHYLTHIAZOL IN INFECTIONS CAUSED BY STAPHYLOCOCCUS AUREUS

(Summary and Conclusions of a Preliminary Report in the November 29, 1939 edition of Proceedings of the Staff Meetings of the Mayo Clinic.)

IT APPEARS that sulfamethylthiazol is a rather efficient drug in infections caused by pneumococcic and especially the staphylococcic organisms; this conclusion appears to be true not only experimentally but also in preliminary clinical work.

In addition to this factor of chemotherapeutic efficiency, there appears to be a rather definite decrease in the toxic manifestations of sulfamethylthiazol as compared to sulfapyridine, the latter drug being in itself of some known value in the treatment of staphylococcic infections. However, further observations will yield information concerning the possible delayed toxic effects of the drug, if it has any.

• FOCAL INFECTION AND RHEUMATOID ARTHRITIS

IN A study of 200 consecutive cases of rheumatoid arthritis, Cecil and Angevine found definite evidence of focal infection in 20 per cent and a questionable focus in 10 per cent. This is a great contrast to the high incidence of focal infection found in clinic patients ten years ago. Only nineteen patients had a history of an acute infection of the upper part of the respiratory tract such as coryza, pharyngitis or influenza preceding the onset of the arthritis. A smaller number of cases came on after psychic trauma, childbirth, puerperal fever, physical injury or operation. The tonsils had been removed in forty-six per cent of the cases because of arthritis, although only about 15 per cent gave any history of tonsillitis or sore throat. The operation had no effect on the course of the disease in eighty-six cases, caused a severe exacerbation in two and temporary improvement in four. In no instance was the course of the disease arrested or the patient cured. In one instance the operation on infected tonsillar stumps appears to have been the precipitating cause of the onset of the arthritis. Because of arthritis fifty-two patients had had some, and in many instances all, of their teeth extracted. There was no benefit in forty-seven, and three patients reported a flare-up of the pain in their joints following the extractions. Thirty patients gave a history of sinus disease and twelve had been treated for sinusitis before coming under the authors' observation. The treatment was of no benefit in ten and there was an exacerbation of the disease in two. When first seen by the authors, twenty-seven patients had an infection of the tonsils or remaining tonsillar stumps. Twenty of these patients were treated; thirteen remained unimproved or became worse and temporary improvement occurred in only seven. This improvement lasted from one week to several months. At the time of examination only eleven of the 200 patients gave evidence of an active sinus infection. Five of these cases were treated, all without benefit. In the three cases in which additional dentistry was performed there was no benefit. The authors stress the fact that a more conservative attitude should prevail regarding the treatment of tonsils, teeth and sinuses in rheumatoid arthritis. A complete revaluation of the focal infection theory should be made. Undoubtedly there are cases of infectious arthritis which result from focal infection. However, as far as typical rheumatoid arthritis is concerned, chronic focal infection apparently plays a comparatively unimportant part. *Am. Int. Med.*, 12:577 (Nov.) 1938 via. *J.A.M.A*, 112:83 (Jan. 7) 1939.

This is one of the strangest and profoundest laws of life; you can do what you believe you can do; and conversely, you can't do what you don't believe you can do. Disraeli said once, in effect, that there was nothing, literally nothing, which a man could not achieve if he was determined to achieve it, and if he believed that he could. —Lord Elton in "It Occurs to Me."

PRINCE EDWARD ISLAND

Editor—M. H. GARVIN, Winnipeg

SASKATCHEWAN

A S S O C I A T E E D I T O R S

D. T. Waye, Charlottetown

QUEBEC

ONTARIO

F. C. Harwood, Moose Jaw

NOVA SCOTIA

E. M. Laurin, Montreal

T. R. Marshall, Toronto

ALBERTA

S. G. Ritchie, Halifax

John Clay, Calgary

MANITOBA

NEW BRUNSWICK

BRITISH COLUMBIA

J. F. Morrison, Winnipeg

J. F. Edgecombe, Saint John

J. S. Bricker, Vancouver

An Appreciation

In a national emergency, the duties and obligations of a professional group are greatly increased. This statement is particularly pertinent to the profession of dentistry. Under normal conditions, the members of the dental profession are more or less responsible for the dental health of the citizens of this country but, under the present circumstances, they are responsible, not only for the dental health of the civilian population, but also for providing adequate dental treatment for the members of the Defence Forces. In this regard, the profession of dentistry in Canada is very fortunate in that Col. Frank M. Lott is the Director of Dental Services. His ability, sterling character and qualities of leadership are known throughout the length and breadth of Canada, which may account for the fact that his name was the unanimous choice of the Board of Delegates representing all the Provinces, when they instructed me to submit a recommendation for the position of Director of Dental Services to the Department of National Defence, which recommendation was accepted by them.

In the reorganization of the Dental Corps, Col. Lott has associated with him a group of most capable officers, having the confidence and respect of the dental profession, and, in less than six months, they have surmounted

innumerable difficulties and formed a Dental Corps of which we are all proud. This result could not have been obtained without the splendid co-operation of the dental manufacturers and dental dealers, who have exerted every effort to obtain the necessary supplies and equipment. In addition to this, many supply houses and dental laboratories have lost the services of their most valued and efficient employees, who have enlisted in the Dental Corps.

Last July, an appeal was placed before the Tariff Board which, if successful, would have increased the duty on certain dental gold alloys. This appeal was opposed by different dental manufacturers and dealers, as well as by the Canadian Dental Association. The appeal was heard but, before decision was rendered, the appellant asked for and received permission to withdraw the petition, due no doubt to the desire on their part not to force an issue which was objectionable not only to the dental profession but to the Canadian Dental Trade Association as well. These different acts of co-operation with the profession of dentistry on the part of the dental manufacturers and dealers can only tend to increase the happy relations existing.

Stephen A. Moore.

Dentistry's Centennial 1840-1940

The story of dentistry had its beginning before the dawn of history with the savage who knocked out his aching tooth with a hammer and with the medicine man who strove to drive out an evil spirit in order to relieve an abscessed tooth.

For thousands of years progress along this line was very slow. About 2,500 years ago the Athenians, and later the Romans, adopted more or less rational treatment for mouth diseases, but this skill almost vanished during the dark ages. Early in the eighteenth century there appeared on the scene the great Frenchman, Pierre Fauchard, who came to be known as the "Father of Modern Dentistry" and by his efforts the practice of dentistry was transformed from a trade to a learned profession. However, it is only during the last hundred years that dentistry has made rapid progress and it is safe to say that its development has been phenomenal. During this time we have had the impact of the teachings of the great American, G. V. Black; the discovery of the casting process by W. H. Taggart, also of the U.S.A.; the invention of the x-ray by W. C. Roentgen, of Germany; the use of cocaine by Carl Kohler, of Vienna, and the recognition of focal infection by William Hunter, of England.

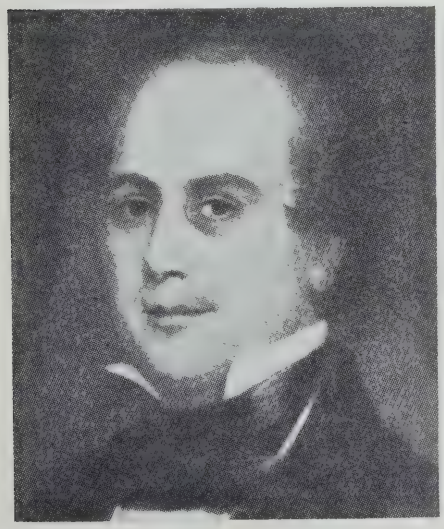
This hundred years of progress on this Continent commenced with the founding of the first dental school in Baltimore, U.S.A., in 1840 by Horace H. Hayden and Chapin A. Harris. During this same year these men, with the

Baltimore College Dental Surgery, the First Dental School in the World.

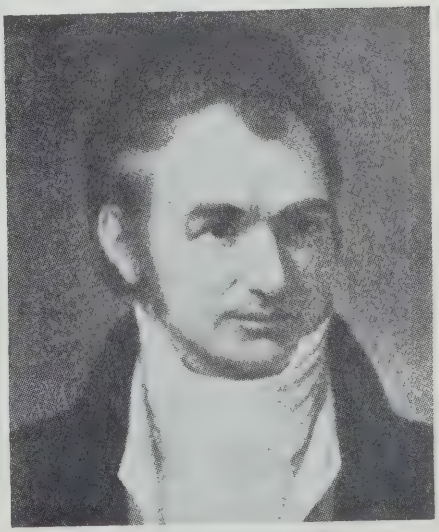
strong support of other leaders in dentistry, organized the first National Dental Society. In 1839 Chapin A. Harris had established and published the first Dental Journal, known as the American Journal of Dental Science.

To commemorate the founding of dentistry as we know it, to pay just tribute to Horace H. Hayden and Chapin A. Harris, co-founders of the first dental school, to review a hundred years of progress during which the profession of dentistry has attained even to the highest hopes of its founders and to prepare for a still broader professional service in the century to follow, members of the American Dental Association, together with representatives from other countries, convened in Baltimore, March 18, 19 and 20, for a National Dental Centenary Celebration.

The program of scientific essays covered the entire field of our profession under eighteen branches and were presented by the outstanding intellects of contemporary dentistry. The division devoted to the historic and the scientific exhibits demonstrated a century of advancement in the art and science of dentistry. Never before has the profession had an opportunity of seeing and studying such a comprehensive accumulation of dental matter as that shown in this department.



HORACE H. HAYDEN



CHAPIN A. HARRIS

ACADEMIA
Chirurgiæ Dentium
Baltimoriensis
OMNIBUS AD QUOS HÆ LITERÆ PERVENERINT
SALUTEM
Studuit ... qui in scientiis a nobis dictis ... exercuit ... Doctoris ... Datum Urbe Baltimoriensi ... Anno Domini MDCCCXLIV

Replica of graduation diploma presented to Robert Early, in 1844, by the Baltimore College of Dental Surgery, and at present owned by Dr. John M. Grahame, of Winnipeg, Manitoba.

Late registration figures showed that approximately 6,500 dentists, physicians, members of dental trades groups, and others of official position participated in the Baltimore meeting.

An outstanding announcement was made by President Arthur H. Merritt, regarding a bill which has been submitted to the United States Congress for dental research. The bill asks for an appropriation to cover six years' work, $75,000 the first year, and with an additional $10,000 each year thereafter, the entire appropriation amounting to $600,000. The need for research in dentistry was emphasized throughout the meeting, practically every essayist on the scientific program discussing the future problems of the profession in terms of research.

A Doctor of Science degree was conferred, by the University of Maryland, on Dr. Arthur H. Merritt, President of the A.D.A., Dr. William J. Gies, of New York, and Dr. Harvey Burkhart, of Rochester, N.Y. A Doctor of Laws degree was conferred on Dr. Raymond A. Kent, President of the University of Louisville.

At this meeting emphasis was also placed on the close relationship between dentistry and medicine, and perhaps more medical men spoke at the sessions than at any other dental meeting in history.

A unique feature of this Centennial gathering was the program presented at Ford's theatre, a "dramatic cavalcade of the profession of dentistry" entitled "Wilderness", written especially for this occasion and depicting many scenes in the building of the major factors of dental progress. The drama was presented in 25 effective scenes and members of the profession enjoyed it not only because of its historical import, but also as a theatrical presentation.

The Canadian Dental Association was represented officially at this great gathering by Dr. Eudore Dubeau, of Montreal, but Canada plans to further commemorate this hundredth anniversary the latter part of May. On May 27 the Canadian Dental Association in conjunction with the Ontario Dental Association will hold a joint Centennial luncheon in the City of Toronto at which prominent speakers will participate. On the same day commemorative dinners will be held in various centres throughout our Dominion. This program is in the hands of the Public Relations Committee of the Canadian Dental Association and under the able chairmanship of Dr. John S. Lapp, of Toronto. Dr. Lapp has been collecting information about the early happenings in the dental profession of Canada, the outstanding achievements of our pioneer dentists, and this material will be made available for the various meetings being held next month.

One interesting dental relic is owned by Dr. John M. Grahame, of Winnipeg, Manitoba, in the nature of a dental diploma, a photograph of which accompanies this article. This diploma was issued by the Baltimore College of Dental Surgery in 1844, just 96 years ago, and is one of the very early diplomas to be issued by this first dental school. It was granted to Robert Early and signed by Chapin A. Harris as Dean and two others whose names are too indistinct to decipher after these many years. Robert Early's grandson is R. E. Phelan, former general manager and chief engineer of the Hudson's Bay Mining and Smelting Company. Mr. Phelan, who is now retired at Tuscon, Arizona, gave this parchment to Dr. Grahame, several years ago. According to Mr. Phelan, Robert Early lost his brother in the Civil War and the body was identified by dental records of gold fillings which had been inserted in the victim's mouth by his brother.

This occasion is a splendid opportunity for the profession to analyze its progress, one hundred years following the birth of Dental Education, Dental

Journalism and Dental Organization and to plan a broad foundation for even greater achievements in the future.

"The tissue of life to be,
We weave with colours all our own;
And in the field of destiny,
We reap as we have sown."

BOOK REVIEW

The Merck Index; Fifth Edition; An Encyclopedia for the Chemist, Pharmacist, Physician, Dentist and Veterinarian. Compiled and published by Merck and Company, Inc., Rahway, N. J. Price $3.50.

This encyclopedia of chemicals and drugs represents the most extensive compilation of this authoritative reference work that has been undertaken since the first edition which appeared in 1889. In this new edition of 1060 pages will be found 5,900 descriptions of individual substances; 4,500 chemical, clinico-chemical reactions, tests and re-agents by the author's name; formulae for preparation of culture media, fixatives and staining solutions; useful tables; antidotes for poisons and literature references.

This book should be valuable to the dentist and particularly to the research worker who desires to establish prior information on the subject which he is investigating.—*M. H. G.*

DENTAL CORPS NEWS

C.D.A. President Honoured

The President of the Canadian Dental Association, Dr. Stephen A. Moore, has been appointed Honorary Lieutenant-Colonel of the Canadian Dental Corps.

The Canadian dental profession heartily congratulates Dr. Moore upon this signal honour which has come to him as a reward for great and sacrificial service in the interests of the Dental Corps and the profession of dentistry.

No. 10 Company, Headquarters, Winnipeg, Manitoba

M. D. 10 comprises all of Manitoba and the Western portion of Ontario. Air districts do not correspond to Military Districts —Manitoba being in the Western Air Command, but Western Ontario is in No. 1 Air Training District.

Fourteen dentists have joined the army in M. D. 10—three of whom have proceeded overseas; viz., Dr. C. L. Strachan, Virden, Manitoba; Dr. C. H. Moore, Winnipeg, Manitoba, and Dr. N. W. Snider, Kenora, Ontario. The two senior officers in M. D. 10 saw considerable service in the last War and find it of great value now. Captain N. S. Bailey has been assigned a task carried on in Great War No. 1 by Lt.-Col. W. W. Wright, that of lecturing to the troops on Oral Hygiene and on the work of the C.D.C. All units have been ordered by Headquarters to have these lectures, and already Capt. Bailey has lectured to over 2,000 troops.

M. D. 10 is quite proud of the fine esprit de corps existing among all ranks. Not an orderly room case, not even a reprimand has occurred to date. This speaks well for the type of men enlisted.

The C.D.C. here is producing weekly or thereabouts a News Bulletin of interest to its own members. This Bulletin contains items contributed by members with personal sketches, incidents, prose, poetry, etc. These are sent as published to every C.D.C. member who has proceeded overseas from M. D. 10, and act as a news letter and contact.

Ladies Auxiliary

A very active Ladies Auxiliary to the C.D.C. is a source of pride and inspiration. They have over 60 paid members. The sewing room donated by Hudson's Bay Company, is

used all day every Monday by members, many of whom come for the whole day. Material is obtained from the Red Cross. Articles already delivered to the C.D.C. and marked with the name of Red Cross and Canadian Dental Corps (sewn on) include 582 towels, 20 rubber aprons and 16 laundry bags. 35 operating gowns are partly completed. Other work on hand includes assistants' gowns, socks, mufflers, wristlets, sleeveless sweaters and mitts. Knitted goods all contain the Corps' colours of emerald green as a border or otherwise. Parcels including dainties, tobacco, socks and books have accompanied officers and men going overseas.

A very important feature of the Ladies Auxiliary beside the accomplishment of necessary work and necessities has been the development of new friendships, which the ladies value highly.

On March 18 they held a silver tea and display of work.

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No. 12 Company, Headquarters Regina, Saskatchewan

The following is a list of Dental Officers in this Military District:—

District Dental Officer — Lt.-Col. G. L. Cameron, D.S.O., V.D.

Officers of No. 12 Company C.D.C.:

Captain A. G. Smith, (Stationed at Regina.)
Captain C. W. Steele, (Stationed at Weyburn.)
Lieut. H. R. Kerr, (Stationed at Regina.)
Lieut. T. J. S. Cooke, (Stationed at Regina.)
Lieut. I. G. MacKenzie, (Stationed at Regina.)
Lieut. R. D. Reid, (Stationed at Saskatoon.)
Captain Harry E. Smith (Attached as Dental Officer to 10th Field Ambulance, Regina.)
Lt.-Col. J. E. Wright, (Officer Commanding South Saskatchewan Regiment, Weyburn.)

A number of other dentists are being gazetted as officers in No. 12 Company, C.D.C. (Un-posted), which means that they are Militia Officers and are then available for posting to the Canadian Active Service Force as their services are required.

A very fine lot of N.C.O's and men are in this unit, and a high standard of educational qualifications has been required. Very few of them have less than Grade XII, or Senior Matriculation.

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Ladies Dental Auxiliaries

After considerable correspondence between the President of the Canadian Dental Association, Lt.-Col. Stephen A. Moore, and the Department of National Defence at Ottawa it was agreed that dental auxiliaries may be formed under the following regulations:—

1. That at the present time it is inadvisable to organize a Dental Ladies Auxiliary on a national basis.

2. That, before a group is organized in any District, it receives the approval of the District Dental Officer and the Officer in charge of Auxiliary Services for that District.

3. That registration under the War Charities Act is necessary if it is desired to raise any money.

4. That no project involving the dental services be undertaken without the permission of the District Dental Officer and the Officer in charge of Auxiliary Services for that District.

5. That, before any of the above steps be taken to organize a group, the Delegate for that particular province assures himself that there is a need for such an organization.

6. In order to facilitate matters, it is suggested that in each District where there is one or more Ladies Auxiliaries, one member from the ladies' group be appointed to act as a liaison officer between the Ladies Dental Auxiliary, the District Dental Officer and the Officer in charge of Auxiliary Services for that District. In this way, a minimum amount of time would be consumed by the Headquarters Officers. The method of co-ordination should be discussed with the Auxiliary Services Officer.

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Lieut.-Col. George L. Cameron, D.S.O., from Swift Current, Saskatchewan, has been appointed second in command of the Canadian Dental Corps and has reported for duty at Headquarters, Ottawa. Lieut.-Col. Cameron was formerly District Dental Officer for Military District No. 12 at Regina.

Before we set our hearts too much upon anything, let us examine how happy those are who already possess it.—La Rochefoucauld.

NEWS FROM THE PROVINCES

BRITISH COLUMBIA:

Air Force Appointment

Captain William Gibson, prominent and outstanding dentist of Victoria, is stationed at the Vancouver Air Force Dental Clinic. The Air Force is very fortunate in having such a capable operator on its staff.

ALBERTA:

Refresher Course

Ninety dentists attended the Refresher Course held in Edmonton, February 26-28. At the opening session Dr. W. A. R. Kerr, President of the University, extended a welcome to those present.

Members of the Faculty presenting the program of lectures and demonstrations were Drs. R. L. Scharff, H. B. Ness, John W. Clay, H. E. Bulyea, W. S. Hamilton, H. R. McLean, G. B. Thurston, A. M. Revell, H. A. Gilchrist, R. C. McQuillan, S. D. Fraser, R. A. McEwen, A. B. Mason, M. M. Dunsworth, G. J. Hope, G. A. Gemeroy, E. H. Watts and P. Herieux.

Entertainment in the form of a dinner-dance was arranged for the visiting dentists and their wives by the Edmonton Dental Society. —*Edmonton Journal.*

SASKATCHEWAN:

Regina Dental Society

The January meeting of the Regina Dental Society was held in the Drake Hotel, with the President in the chair. The Secretary of the Society, Dr. H. R. Kerr, tendered his resignation owing to his enlistment in the Canadian Dental Corps. Dr. C. C. Clermont was elected Secretary for the balance of the season. At this meeting Dr. H. Kennedy gave an interesting clinic on the uses of Radio Cautery in dental practice.

The February meeting of the same Society was held in the usual place. An unusual feature of this meeting was contributed by Dr. J. A. Brass, Yorkton, and Dr. F. G. Garvin, Canora, who supplied moose meat for the dinner, which was thoroughly enjoyed by those present. Dr. Brass gave a very interesting talk outlining the contrasts between the practice of dentistry thirty or more years ago in this Province, and the conditions prevailing today. The congratulations of the Society were extended to Lt.-Col. G. L. Cameron on the success of his son, Douglas, in winning the 1940 Rhodes Scholarship for Saskatchewan.

At the March meeting of the Society, Dr. Ian McKenzie gave a very fine table clinic on three quarter crown technique, using models and drawings to illustrate his ideas. The Society is quite proud, and deservedly so, of its record in having five of its members on active service, four in the Dental Corps and one as Dental Officer to the 10th Field Ambulance.

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Moose Jaw Dental Society

The February meeting of the Moose Jaw Dental Society was held in the Grant Hall Hotel, with the President, Dr. A. D. Leask, in the chair. The guest speaker of the evening was Lt.-Col. G. L. Cameron, District Dental Officer in Military District 12, who gave an informative talk on the organization of the Dental Corps in Canada and in this district. The Society extended its congratulations to the speaker on behalf of his son, Douglas, on his selection as Rhodes Scholar-elect for Saskatchewan for 1940.

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Rotarians Plan Dental Clinic

The Fort Qu'Appelle Rotary Club in cooperation with Fort Qu'Appelle village and Fort San are undertaking plans to develop a free dental clinic to include all children in the Fort Qu'Appelle and Fort San school districts from pre-school to 16 years of age.

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Watrous School Clinic

On February 5 the Watrous Town Council approved of the inclusion of the costs of the school dental clinic in the estimates for 1940.

MANITOBA:

Manitoba Dental Association

A section of the Dental Act of Manitoba is intended to define what constitutes the practice of dentistry. It reads as follows: "Every person shall be conclusively deemed to practise dentistry within the meaning of this Act

who shall perform any such operation or give or render any such treatment, advice or attendance as is usually performed, given or rendered by dentists; and without limiting the generality of the foregoing, who shall ——" (There follows here several paragraphs lettered (a), (b), (c), (d), (e), (f).) Paragraph (c) reads as follows:

(c) fit or insert or attempt or profess to fit or insert in the mouth of a human being, or take or attempt or profess to take any impression for any artificial tooth or teeth or bridge or fixture or appliance for the restoration, regulation or improvement of the dental organs or any part thereof,—(*or supply, or offer to supply to the public artificial teeth, dentures or repairs therefor*;). The portion in parenthesis is an amendment which has just been added to the paragraph to make it illegal for dental mechanics to advertise repairs of dentures or any artificial teeth.

Three dental mechanics of Winnipeg have been advertising such repairs for some years, but there was not anything in the Dental Act to prevent them from so doing. British Columbia added the above words to its Dental Act last year, and now that Manitoba has followed suit no doubt the other Provincial Legislatures will do likewise.

The steady increase of cancer of the mouth would suggest that a contributing factor may be badly fitting repaired dentures done in these advertising dental laboratories where there is no supervision by qualified registered dentists. The 1939 "Handbook on Cancer," published by the Cancer Committee of the Canadian Medical Association has a paragraph on Page 38 which says that while the actual cause of cancer is unknown, it is known that there are certain predisposing causes of cancer of the oral cavity such as broken teeth and badly fitting dentures. The B. C. amendment was presented in its Legislature by the Attorney General and it went through without any comment, but in Manitoba opposition came from five dental mechanics, four of whom have convictions registered against them for violation of the Dental Act.

Six Winnipeg Dental Laboratories; namely, Abram & Wescott, Frederick J. Campbell, Manitoba Dental Laboratory, S. R. Reid, Shaw Dental Laboratory and United Dental Laboratories, gave their support to the amendment.

At the March meeting held in the St. Regis Hotel an interesting and helpful "Dental Quiz" was conducted by Miss A. Bridgeman.

ONTARIO:

Dental Nurses' Alumnae Association Raise $122.00 for Dental Corps

The Dental Nurses' Alumnae has presented to the Canadian Army Dental Corps the sum of $122.00,—which money was raised at the Annual Bridge held in February. The members of the Alumnae decided earlier in the year to contribute whatever proceeds were received from the Bridge to the Dental Corps to aid them in their work. The result of the Bridge was very encouraging and the Alumnae are indebted to the executive, and to their many friends in the dental trade, the profession and elsewhere for their assistance.

Miss Marjorie Joyner presided at the March meeting of the Alumnae which met at the Women's Union. Dr. Chas. Williams of the Faculty of Dentistry of the University of Toronto described his trip to Canada's East Arctic last summer, and showed beautiful, coloured moving-pictures of his trip. He brought back many samples of the work done by the Eskimos both in ivory, and wood carving, and in needlework. These he passed around for inspection at the close of the meeting.

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Downtown Dentists

On March 11 the Association of Downtown Dentists of Toronto had its official dinner meeting and elected the following officers: President, Dr. W. H. Walton Ball; Secretary, Dr. F. Fraser; Treasurer, Dr. G. McVicar; and the following Executive Committee: Drs. A. B. Babcock, R. Ellis, F. Farman, G. Booth, I. McLaurin and N. McLeod.

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Lambton County Dental Society

The Lambton County Dental Society has been reorganized and the following officers were elected: President, Dr. J. W. McVicar; Vice-presidents, Drs. A. E. Hughes and E. A. Storey; Secretary-treasurer, Dr. J. M. Garrett.

The Secretary-treasurer has been appointed by the Society to deal with matters concerning Oral Hygiene.

The Baltimore Dental Centenary
March 18-20, 1940

The above photograph illustrates the exhibit presented at the Baltimore meeting by the Faculty of Dentistry, University of Toronto.

"Subject: 'Dentistry in Canada.'

"Description: In the immediate foreground of the Canadian exhibit minerals are displayed. By this means the mineralogical derivation of many dental materials is typified.

"The exceptionally high grade of Canada's gypsum deposits guarantees a supply of satisfactory dental plasters, dental stone and investment materials. Canadian graphite, fire-clay, mica and asbestos deposits are of such excellent quality as to meet any metallurgical standards. Abrasives are to be found in great abundance. The Sudbury district alone furnishes copper, nickel, platinum and palladium, sufficient for all dental requirements. Canada is one of the world's greatest producers of gold and silver. Canadian feldspar, being of extraordinary purity, is in great demand by manufacturers of artificial teeth. Liberal deposits of the ores of tungsten, malybdenum, chromium and cobalt facilitate the production of non-corrodible alloys.

"Supplementing the mineral display are some prosthetic technique, models in the construction of which materials derived from minerals are used.

"In the near background are portrayed a few Canadian teaching institutions whose graduates have won recognition in the realm of dental thought and research.

"On the sidewalls some phases of Canadian pioneer dentistry as well as modern dentistry are depicted. Mobile dental clinics reach beyond the customary frontiers and go far within the Arctic Circle. Dentists travel by means of canoe, pack-horse, dog-sleigh, supply boats and aeroplane on their errands of mercy. In the more settled districts well-equipped dental infirmaries are located in railway coaches and autocars."—*Centenary programme.*

Canadian dentists will have an opportunity to see this exhibit at the Annual Convention of the Ontario Dental Association which is being held in Toronto, May 27th, 28th and 29th in conjunction with the Canadian Dental Association meeting.

Sarnia Dental Clinic

On February 19 the Sarnia City Council placed to the credit of the Board of Health $500 to be used by the dental clinic from then until the closing of schools in June.

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Dental Nurses and Assistants

THUNDER BAY CHAPTER — The regular monthly meeting was held February 13 in Dr. Hutchinson's office with the President, Miss Ruth Garland, in the chair. It was decided that instead of holding the usual yearly Raffle that each member donate $1.00. It was decided, also, that Miss M. Sutherland would give a paper and clinic at the Convention.

LONDON CHAPTER—A number of the London dental assistants attended the London Dental Association "Ladies' Night" on February 10 in the Hotel London. After dinner Dr. C. H. M. Williams, of Toronto, gave an address and showed coloured motion pictures of his three months' trip to the Arctic.

On February 19 the regular monthly meeting was held in the office of Dr. S. A. Moore, at which the fourteen members present heard a most interesting talk by Dr. Jean Campbell, noted gynaecologist. It was decided to hold a Rummage Sale on March 9, to raise money for the Membership Drive fund.

TORONTO CHAPTER—The regular meeting was held at the Royal York Hotel on March 4 with the President, Miss Madge Buik, in the chair.

Many members were knitting and a large number of articles were turned over to Miss Leta Birkmeyer, the War work Convener. A motion picture party is announced for March 12 at the Parkdale Collegiate, the proceeds to go for further knitting.

Dr. S. A. McGregor gave a splendid talk on "Child Psychology and Practice Management, with Reference to Children"; after which he answered questions of the members. Clinics and Posters for the coming Convention were discussed.

WINDSOR CHAPTER—The regular meeting was held on March 4 with the President, Miss Dorothy Scott, in the chair. Five Dollars were donated to the Blind Institute.

Miss Francis Finn was named Reporter for the Windsor Chapter to give news to the Ontario Bulletin. A letter was read inviting all Windsor assistants to visit the Spring Clinics in Detroit on April 17.

Dr. Straith, plastic surgeon, showed very interesting motion pictures on "Crushed and Fractured Skull Operations," "Mouth Diseases," "The Formation and Removal of Cysts."

QUEBEC:

Montreal Dental Club

On February 26 in the Club rooms of the Montreal Dental Club, Dr. A. L'Archeveque of the French Dental Club of Montreal gave a paper on the temporo-mandibular joint. He made a complete review of all types of articulation found in the human body, stressing particularly the temporo-mandibular articulation. He pointed out the importance of being extremely careful in the taking of the bite for the making of dentures. He also exhibited for the first time a skull which he carved out of a solid piece of hard wood. It was a perfect duplicate of a natural skull containing all the small bones which are found in the normal skull. The lecturer pointed out that it took him three years to complete this work.

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Resolution by Montreal Dental Club

At the last meeting of the Executive of the Montreal Dental Club a resolution was passed making the Journal of the Canadian Dental Association its official organ.

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Dental Support by I.O.D.E.

The Prince David Chapter, I.O.D.E., at its seventh annual meeting, contributed to the Children's Dental Clinics on behalf of pupils of William Trenholme School. — *Montreal Gazette.*

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Orthodontic Clinic

A new civic orthodontic clinic was opened in the Dental School of the University of Montreal on February 12. Services will be given to those children only who, for financial reasons, are unable to have the work done elsewhere. Dr. Paul Geoffrion, head of the orthodontic service of the University was appointed to take charge of the clinic.— *Montreal Herald.*

Dental Nurses and Assistants

On February 6 the members of the Montreal Dental Nurses' and Assistants' Association held their annual dinner and election of officers at the LaSalle Hotel. Miss Lillian Fincher, President-elect, presided. The officers for the year are as follows: Hon. Pres., Miss Mildred Starr; Pres., Miss Lillian Fincher; 1st Vice-pres., Miss Grace Robinson; 2nd Vice-pres., Miss Lois Winters; Rec.-sec., Miss Dorothy Arnett; Cor.-sec., Miss Dorothy Ross, and Assistant, Miss Hilda Humble; Treas., Miss Nora Johnson; Clinic, Miss Edna Nicolle; Program, Miss Marjorie McInnes; Publicity, Miss Eve Miron; Social, Misses Catherine MacIver and Kay McNanaman; Membership, Miss Marie Keenan; Reception, Misses Enid Mitchell and Jean Holt.

EMPIRE NEWS

GREAT BRITAIN:

Great Britain Represented at Baltimore

It was at one time feared that the war would make it impossible for any delegates from Great Britain to attend the Centenary Dental Celebration at Baltimore, U.S.A., but fortunately the difficulties were overcome and Mr. A. E. Rowlett was appointed by the War Council to represent the Association at this important gathering.—*Br. D. Jour., February 15, 1940.*

AUSTRALIA:

Sydney Dental Hospital

The new Sydney Dental Hospital in New South Wales was opened last August. The floor space is almost five times that of the original hospital, and the building has the following modern services:—(a) Central heating; (b) steam and hot water supply; (c) sterile water; (d) mechanical ventilation; (e) compressed air supply; (f) nurses' signalling system to all clinics; (g) staff paging system and in-and-out register; (h) house and P.M.G. telephone systems; (i) easily accessible power and light outlets; (j) fast elevator service.

The departments of the hospital are located as follows:—

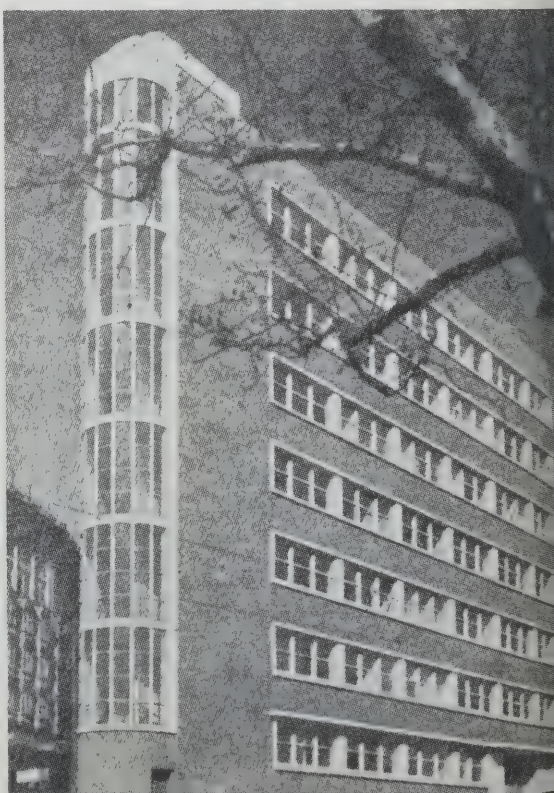
Basement: Boiler and mechanical plant room and workshop; central stores; changing rooms and lavatories for male staff, mechanics and cleaners; linen store and issue room and soiled linen room.

Ground.—Main entrance hall and enquiry office; honoraries' room; hall porter's room; bicycle and pram store; general office; secretary's office; registrar's office; central records room; stationery store; dental supply shop; nurses' and students' locker rooms.

First Floor.—Examination and immediate treatment surgery; exodontia and recovery rooms; X-ray department and photography department; pathology and bacteriology departments; administrative suite, comprising Board room, Dean's office, offices of Superintendent, Assistant Superintendent and matron.

Second Floor.—Department of prosthetic dentistry (hospital staff); department for children; first year prosthetic laboratory and processing rooms; senior nursing staff changing rooms.

Sydney Dental Hospital



THIRD FLOOR.—Second, third and fourth year students' laboratory and instructor's office; prosthetic dentistry surgery; operative technique laboratory; luncheon room.

FOURTH FLOOR.—Department of oral surgery, including preparation rooms, operating theatres and recovery rooms, changing room, central sterilizing department and research laboratory.

FIFTH FLOOR.—Department of operative dentistry, containing 46 chairs and units, as well as sterilizing and supply issue rooms.

SIXTH FLOOR.—Department of surgical dressings and periodontia; museum; women students' locker rooms.

ROOF.—Caretaker's quarters; ventilation plant; lift machinery.

This hospital will not only be a boon to the poor of the State, but will provide much greater facilities for the training of the students of the University of Sydney.

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Military Rank for Dentists

As a direct result of the efforts of the officers of the Australian Dental Association, and a personal interview of the President with Brigadier Street, the Minister for Defence, dentists will in future receive the minimum rank of Captain.—*Australian J. of D., Feb. 1940.*

NEW ZEALAND:

Major-General Freyberg, V.C., C.M.G., D.S.O.

Major-General Freyberg, V.C., C.M.G., D.S.O., the Commander-in-Chief of the New Zealand Expeditionary Force, practised as a dentist in a little country town in New Zealand before he turned soldier on the outbreak of the last war.

In that conflict his conspicuous bravery and brilliant leadership won him many honours and distinctions.

Nine times wounded, six times mentioned in despatches, awarded the Victoria Cross and the Distinguished Service Order with two bars —that, in the bald language of the official records, is Bernard Freyberg's war-time history.

The dare-devil dentist — "Tiny" Freyberg they call him in the Service because of his impressive physique—won his V.C. during the closing stages of the Battle of the Somme in November, 1916.

It was solely due to his heroism that the German line was broken. He was wounded four times in the forty-eight hours' engagement, but with dogged pluck he refused to quit, so inspiring his men by his own gallant example that they drove a wedge clean through the German front-line trenches.

For dare-devil exploits in later stages of the war he was awarded two bars to his Distinguished Service Order, one for saving a bridge at Lessines, and the other for leading a little band of nine men in a charge on a village held by more than a hundred Germans. The village was taken and most of the defenders made prisoners. He received his D.S.O. at Gallipoli when he volunteered to swim ashore from a destroyer two miles out and light flares on the beach in the occupation of the enemy to delude them into imagining that the British troops were attempting a landing. It would be difficult to imagine a more perilous mission. The chances of returning alive were about one in a hundred, yet "Tiny" Freyberg was laughing and joking as he plunged over the side to begin his long swim ashore through the ice-cold sea. He was naked and painted black from head to toe to avoid detection in the darkness, and with him he carried a waterproof bag containing calcium lights and oil flares with which he was to deceive the enemy. His only weapons were a long knife and a revolver. There were few more spectacular and more valuable deeds of daring in the last war than this midnight swim in the Dardanelles. "Tiny" Freyberg's bravery that night, his utter disregard for his own safety, saved thousands of lives.

Since the war Major-General Freyberg has, despite his nine wounds, made two gallant attempts to conquer the English Channel. Fourteen years ago he was taken from the water in a state of complete exhaustion within a few hundred yards of the English coast. He had then been in the water for 17 hours.

Though not yet fifty, he now proudly commands the New Zealand Expeditionary Force, which arrived at Suez on February 12 after having been safely escorted by French and British warships on their voyage of more than

10,000 miles. A far cry from a dentist's surgery in a little country town — but then Bernard Freyberg had the courage to chase his dreams and catch them by the tail!—*Condensed from articles in The Ivory Cross Journal and D. Mag. and Oral Topics.*

GENERAL NEWS

Registration at Midwinter Meeting of Chicago Dental Society

A.D.A. (Visiting dentists)	2,865
Chicago Members	2,642
Physicians, Nurses, Students, Assistants, Hygienists, Members of family, Technicians	4,244
Exhibitors	1,476
Grand Total	11,227

Five out of six members of the Chicago Dental Society attended this meeting. On the opening day of the meeting 5,818 passed through the turnstiles.

Cavalcade of Dentistry

(Electrical Transcription)

A feature of the St. Louis Dental Society Centenary Celebration, March 11, was the dramatized "Cavalcade of Dentistry" presented in radio form and covering important developments in the field of dental practice over the period of the last century; a fascinating drama of dentistry, equally interesting to laymen and dentists. The script, production and recording was handled by radio professionals.

Fifteen subjects of the last hundred years of dental progress were dramatized and narrated with connecting continuity supplied by a narrator. The topics were as follows: Fauchard, Roman period, St. Apollonia, first dental college, organization of the first dental society, G. V. Black, W. D. Miller, the first dental journal, general anaesthesia, local anaesthesia, x-ray, orthodontics, vulcanite war, amalgam controversy, casting.

Platinum Metals in Dentistry

The use of platinum metals, and particularly palladium in dentistry, has shown a very favourable increase during the year 1939. Not only in Germany, before the war, has such increase been particularly noticeable, but also in the United States.

Another important step in dentistry during the year was the further development of the casting of platinum and iridium-platinum, making possible the baking of high fusing, high strength porcelain over a cast platinum framework. This process should have an aesthetic appeal for the patient by the concealment of metal in dental restorations.—*From Nickel Digest.*

Postgraduate Courses to be Offered by New York University College of Dentistry

PERIODONTIA

Seventh Annual Postgraduate Course

Schedules: A. June 17-28, 1940, morning and afternoon sessions. (No session on Saturday.)

B. June 17-July 10, morning and afternoon sessions for the first three days and morning sessions only thereafter. (No sessions on Saturdays.)

Tuition: $100. The enrollment is limited to fifteen students.

FULL DENTURE PROSTHESIS

Schedule: May 31-June 28, 1940, Fridays, 1:00-7:00 p.m. (A one-week full-time course in July may be arranged later.)

Tuition: $100. Class limited to four men per instructor.

FIXED BRIDGE CONSTRUCTION

Schedules: May 20-June 15, 1940, morning sessions, including Saturday.

May 20-June 1, 1940, full-day sessions, including Saturday morning.

Tuition: $100. Class limited to sixteen members.

For further information concerning these courses, write to:

The Office of the Dean,
New York University, College of Dentistry,
209 East 23rd Street, New York, New York.

New Member on Journal Committee

Dr. Charles H. M. Williams, of Toronto, has been appointed a member of the Journal Committee of the C.D.A. following the resignation of Dr. Gerald Franklin, of Montreal, who is at present with the First Divisional Company of the Canadian Dental Corps in England. We most heartily welcome Dr. Williams to the personnel of this Committee and feel assured that, with his ability and interest in the advancement of dental journalism, he will make a splendid contribution to our Journal.

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Dental School at Chengtu, West China Seriously Damaged by Fire

In a letter received by Dr. Walter Willmott from his illustrious son, Earl, who occupies, among other important positions, the chair of English at the West China Union University at Chengtu, the following graphic description of the destruction of a large part of the Dental Wing of the Medical Building is given:

"Gordon Agnew and Harrison Mullett were just on their way back from Chungking with the choir which had been giving concerts in Chungking in aid of the war orphans. (One concert was broadcast to America.) The fire occurred at night and Mary Agnew, who knew where all Gordon's things were, was sleeping. There was not time to go for her, had anyone thought of it. I broke into Gordon Agnew's office, which was on the ground floor, and three or four of us worked at getting things out of it and out of his lab, but none of us knew which things were important or where all of his records of research were; of course we missed the most important. But when the only light was coming from outside, reflected from the flames above, you could not see too well and when the fire was raging on the floor above, you don't have too many extra calm thoughts. Poor Gordon lost nearly all of his slides and all of his records. We got out a lot of apparatus and books, but they could all have been replaced in the end, whereas what was burned cannot.

"Ashley Lindsay lost heavily. Not only was the dental supply store room on the top floor to which no one could get because of the flames burned, but he had a huge collection of models and skulls, some 600 of the latter, on which he was planning to do research work for the rest of his life after he retired from active work. All gone!

"Harry Williams, pathologist, lost all his large collection of invaluable slides which he had been collecting for years as well as everything in his office.

"Golly, we worked like everything! Everything movable went out, and finally the dental chairs. They came apart while we were dragging them toward the front door and down the stone stairs and the oil, which was in them to elevate them, got all over the stairs; then the slipping and sliding! A continual stream of people carried out apparatus, books, drugs, pathological specimens in bottles, etc., etc. Outside, weak little fire hoses were playing through the windows on a raging fire in the south end of the building. Everyone expected the whole building to be completely gutted. About an hour after we were called, two fire engines with power pumps arrived and with great efficiency got into action immediately. It took them four hours and a half to put the fire out but they saved the north end and even some of the cabinets of things in the south end were saved.

"Nobody can discover how the fire started. It started in a corner of the building where there were no electrical fixtures at about midnight. The only explanation they have for it so far is a thief with a flare or an incendiary. It has terribly disorganized the dental work for the term. Nearly all their dental supplies were burned. About $1,000 worth of gold bars were rescued from the debris; about half that much was lost."

Tomatoes are a "store-house of health," an inspiration to a meal and a beautifier for the skin. Dieticians give them full marks, doctors recommend them, and housewives say they are an appetizing addition to any table. They contain more iron than milk or eggs, more lime than bananas and apples, and are rich in the mineral salts and vitamins necessary for perfect health.—V. E. Collings in "Gardening," per Medley.

Architect's Sketch of Abbott Hall

Abbott Hall

Abbott Hall, a home for the students of the professional schools of Northwestern University on the Chicago Campus, is now under construction in one of the finest locations in Chicago directly overlooking Lake Michigan. It will be modern in every respect and will be the tallest building in the world to be used exclusively for university housing.

Three dental fraternities have leased very attractive quarters and fraternities of the Medical and Law Schools will maintain their homes in the building. More than three hundred single and double rooms, equally desirable, will be available for non-fraternity men, and all residents will use the main dining rooms.

The social rooms and dining facilities on the first and second floors will be adequate and attractive, and athletic exercise rooms, including squash courts and bowling alleys, will be available on the basement floors.

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It Costs More Now to Educate Doctors

The educating of America's future doctors is said to cost almost twice as much per student as the training of any other professional man.

An American Medical Association council, completing a five-year study of medical education, estimated that teaching young students costs an average of $26.96 on the basis of what it calls a "credit hour." Dentistry is the next most expensive—at $15.87 an hour. Agriculture costs $14.51, law $11.05, engineering $10.52, commerce $5.92 and teaching only $4.06.—*Catholic Daily Tribune: 1/12/40, per A.D.A. Release.*

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Amendments

Dr. Faulkner, on behalf of the Committee on Constitution and By-laws of the Canadian Dental Association, L'Association Dentaire Canadienne, gives Notice of Motion that at the next regular meeting of the Board of Delegates of the Canadian Dental Association, L'Association Dentaire Canadienne, he will introduce resolutions looking toward the amendment of the By-laws of the Canadian Dental Association, L'Association Dentaire Canadienne, as noted below:—

Chapter 1, Section 5. Amended by substituting the word "shall" for "may" in the second line.

Chapter 1, Section 9. Amended by deleting the whole of the first paragraph, and substituting therefor the following: "Any member of the British Dental Association or of a Dominion or Colonial Dental Association approved for this purpose by the Board of Delegates of the Canadian Dental Association, L'Association Dentaire Canadienne shall, on producing to the Secretary of the Canadian Dental Association, L'Association Dentaire Canadienne, a recommendation from such an approved Association in a form approved by the Board of Delegates of the Canadian Dental Association, L'Association Dentaire Canadienne, become a temporary member of the Canadian Dental Association, L'Association Dentaire Canadienne, for the period of his temporary residence, not to exceed six months; but such period may be extended by the Executive Committee of the Board of Delegates on written application."

Chapter 3, Section 3. Amended by deleting the words "one of the vice-presidents shall preside," in the last line, and substituting therefor the words, "the President-elect, or

a delegate selected by the majority of the delegates present, shall preside."

Chapter 5, Section 4. Amended by deleting the words "other than that of vice-president" beginning in the first line, and substituting therefore the words "President-elect."

Chapter 6, Section 2. Amended by deleting the whole section and substituting therefor the words "The President-elect shall assist the President in the performance of his duties."

Chapter 6, Section 5. Amended by deleting the words "or to request their Province-wide voluntary organization to make the required appointments" beginning in the eighth line.

Chapter 7, Section 1. Subsection (a). Amended by deleting the words "Unless authority to appoint them be delegated by the provincial legal organization within that Province."

Chapter 7, Section 6. Amended by deleting the following words beginning in the second line "the Board of Delegates shall appoint a committee of five from among its members which shall be known as the executive committee, and the Chairman of the Board of Delegates shall be its Chairman," and substituting therefor the following, "the Board of Delegates shall appoint four of its members to act with the Chairman of the Board as an Executive Committee, and the Chairman of the Board shall be its Chairman."

Chapter 8, Section 2, Subsection (a). Amended by deleting the period after the words "Standing Committees" in the first line and substituting therefor a comma; and further amended by substituting the small letter "t" for the capital letter "T" in the third word.

Chapter 8, Section 2, Subsection (a). Further amended by deleting the words "The Vice-president for the Province in which the Convention is to be held shall be an ex-officio member of the committee."

Chapter 8, Section 2, Subsection (a). Further amended by deleting the words "pertaining to legal and federal Dental Acts" in the 35th line and substituting therefor the words "coming under the purview of such a committee."

Chapter 8, Section 2, Subsection (a). Further amended by adding at the end of the 43rd line the words "The Committee shall have power to add to its numbers, and to name its own executive."

Chapter entitled "Official Publication" should be amended so as to read "Chapter 10. Official Publication." This Chapter should be further amended by inserting between the words "to" and "the" in the last line, the words "the control of."

Chapter 10. Amended by deleting the figures "10" and substituting therefore the figures "11."

Chapter 11. Amended by deleting the figures "11" and substituting therefore the figures "12."

Chapter 12. Amended by deleting the figures "12" and substituting therefore the figures "13."

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Practising Medicine is a Trade

On March 4 the U.S.A. Court of Appeals reversed a district court decision that medicine was a "learned profession" and therefore not within the scope of the Sherman Anti-Trust Act. The Court said that the question is whether the law against restraint of Trade applies to the medical profession. The Court ruled that it does and that it cannot be admitted that the medical profession may, through its great medical societies, either by rule or disciplinary proceedings, legally effectuate restraints as far reaching as those now charged. It seems reasonable to suppose that the matter will now go to the United States Supreme Court.

The ruling is important as it affects the practice of dentistry. If the Supreme Court upholds the ruling the medical and dental organizations will find great difficulty in regulating their membership.

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Chicago Dental Society Pays Tribute to Dentistry's Centennial

On March 11 about three hundred members of the Chicago Dental Society attended a banquet in the University Club to pay tribute to dentistry's Centennial. The deans of the three Chicago dental schools had been assigned the general topic of education. Dr. Frank G. Conklin reviewed the achievements of the past hundred years. The Dean of Rush Medical Graduate School brought the greetings of the

medical profession. Dr. Lon W. Morrey, Director of the Bureau of Public Relations of the A.D.A., closed the speaking program with an address on the future of dentistry, pointing out the tasks of the second century which dentistry must perform.

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Prophylactics Against Caries

In all parts of the world authorities responsible for the health and fitness of the population are directing their attention more and more to the gateway of the body and the teeth. Norway has tried to improve the health of the school children by giving them a breakfast. In Sweden this concern for the teeth of the children has taken a more concentrated if more expensive form in the administration of four kinds of tablets, with attractive names. The children are divided into five groups, four having tablets of varying composition and the fifth, none, acting as a control. The tablets go by the names of (1) Glukofos (calcium salt of hexosdiphosphoric acid), (2) Proviton (glukofos, vitamin A and vitamin D), (3) Calcinat (calcii gluconas) and Jecototal (vitamin A and vitamin D), (4) Calcifer (calcii gluconas, ferrosi chlorid, vitamin D). At the first examination there seemed no difference between these groups and the controls. On the advice of Professor Toverud the dosage of Gulkofos and Proviton was doubled, and Jecototal was given daily instead of intermittently. The last examination seems to have shown a marked improvement, but as the author says, the duration of the experiment is far too short to draw a conclusion from it. The diet and home life of the children are receiving attention. This is only advance information, and the subsequent report will be awaited with interest.—*Br. D. Jour., February 15, 1940.*

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Dentist in Far North

Dr. Fuller, formerly of Edmonton, moved north to regain his health. He is now practising at Goldfields, 500 miles north of Edmonton, and says it is the greatest country he ever lived in. He commutes by air between the mining camps of Goldfields, Yellowknife and Port Radium. His practice covers an area of approximately half a million square miles. Miners in this district are donating $1 to $5 each for the support of Finland.—*Leader Post, Regina.*

Assets of Foundations Total $1,200,000,000

Capital assets of American foundations now total more than $1,200,000,000, a survey prepared by the Raymond Rich Associates as a continuation of previous Twentieth Century Fund studies revealed.

Reports from 243 leading foundations are embraced in the study. One hundred and twenty-one of the 243 reported capital assets amounting to $945,443,637, at the end of 1937, the last year for which complete figures are available. Available information on the other 122 indicates that their total assets amount to another $250,000,000.

Science News Letter—6/3/39, A.D.A. Release.

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Chicago Medical Society Insurance Plan

The Chicago Medical Society has adopted a complete and unrestricted insurance plan for hospital and sanatorium care for its members. After two years of study, conducted by an employment insurance analyst, the society concluded that only cash indemnity plans should be considered.

The plan provides for private room service on a cash indemnity basis, allowing $6 a day for either hospital or sanatorium confinement for a period of ninety-one days for each claim, plus an additional payment up to $30, for incidental expenses in connection therewith, such as operating room, anaesthesia, laboratory, x-ray and ambulance charges. The number of claims in any one year for members under the age of 60 is not limited. Members of 60 years or older are provided ninety-one days at $6 a day plus $30 for incidental expenses in any one year. This is an unusual provision, since most plans limit the number of days of hospitalization in any one year to all members of the group. There are no restrictions as to diseases for which provision is made nor is there any physical examination required for the members of the original group. Later such an examination will be required. Any reputable hospital or sanatorium anywhere may be selected and insurance continues to the age of 70 for an annual premium of $10. The plan is underwritten by an established life insurance company.

A supplemental plan, which will provide hospital and sanatorium benefits for the wives

and children of the members of the Chicago Medical Society plan, is in preparation. Thus another of the leading medical organizations places its approval on the principle of insurance against the costs of illness, but at the same time affirms its conviction that voluntary action and cash indemnity are vital in plans that conform to the democratic concept.—*The Journal of the American Medical Association*: 9/16/39—*A.D.A. Release.*

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Zzylch Zabotaged

In order to make it easy for his patients to call him in emergencies, Dr. C. W. Deguerre, dentist, listed his home 'phone in the book under the fictitious name of Z. Zzylch, so that persons wanting to call him could simply turn to the last name in the directory instead of hunting. The idea boomeranged, however: so many people called up to see whether there really was a Z. Zzylch, that Dr. Deguerre, pestered half to death, decided to take a few weeks' vacation in Mexico until the whole thing blew over.—*Newsweek: 2/12/49, per A.D.A. Release.*

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Mr. Murry Gugenheim's Contribution to Dentistry

Dentistry has sustained a serious loss in the death of Mr. Murry Gugenheim on November 15, 1939, at the age of eighty-one. In 1929 Mr. Gugenheim established the Murry and Leonie Gugenheim Foundation to provide dental care for the underprivileged children of Greater New York. The free dental clinic was erected at 422 East 72nd Street, at a cost of one million dollars, but the grants by the Foundation to date are nearer two million dollars.

The scope of the accomplishment of the Foundation can be visualized by the fact that during the year 1938 the free clinic treated 8,941 children comprising 71,909 visits to all departments. In the School of Dental Hygienists, established in 1932, 234 have been graduated to date.

In his will, Mr. Gugenheim has left an additional $5,000,000 to the Foundation for the purpose of the "promotion, through charitable and benevolent activities, of the well being of mankind throughout the world." The will specifically stated that the funds are to be given to the Murry and Leonie Gugenheim Dental Clinic in order to enable it to establish "a fully equipped dental clinic which affords charitable and benevolent assistance to the children of Greater New York through the practical application of dentistry and oral hygiene."—*D. Items of Interest, Jan. 1940.*

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Research Workers and State Support

In his recent Harveian oration, delivered at the Royal College of Physicians in London, Sir Edward Mellanby, K.C.B., F.R.C.P., F.R.S., spoke on the State and medical research. He said, *inter alia:* "Until recently scientific discovery in this country has depended only too often on the haphazard distribution of wealth. Sometimes, as with Darwin, private means have allowed leisure for experiment and contemplation. Sometimes a society, such as the Royal Institution, has subsidized men like Humphry Davy and Faraday in the same way as Trinity College, Cambridge, subsidized Newton. If these men had depended for their living on ordinary labour, the discoveries associated with their names could hardly have been made by them. On the other hand, some of the best work has been done by men labouring under conditions of extreme simplicity. Would, for instance, the work of Claude Bernard and Pasteur have been better had they received abundant financial support early in their lives? It was when their work was more or less finished that they were given adequate laboratory facilities, not while they were making their great discoveries. . . .

"The historical instances of men given slight but real opportunity who have made discoveries of the first order have imbued us all with the determination that genius shall not in future be lost to the world by lack of money to provide such opportunity. . . . History has demonstrated that State endowment is compatible with the best type of medical research."—*From Topical Therapy, No. 28, Canadian edition.*

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."

Joseph Herbert Greenfield, of Winnipeg, Manitoba, aged 62, died March 24, following several months' illness. He attended the R. C. D. S. of Ontario for two years, then completed his dental studies at Chicago Dental College, graduating in 1902. Since that time he has practised in Winnipeg, and has held many important positions in the gift of the profession.

For four years he was Vice-President, and for one year President of the Board of Directors of the Dental Association and at the time of his death was Chairman of the relief dental service for the city of Winnipeg.

He was a member of the United Church, Meridian Lodge, No. 140, A.F. and A.M. and of the I.O.O.F. He was also a keen fisherman and hunter.

Dr. Greenfield is survived by his widow and two sons, Horace H. Greenfield of Winnipeg, and Dr. Alan Greenfield of Toronto.

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Alfred Edward Hunt, of Ottawa, Ontario, aged, 68, died February 26. Dr. Hunt was stricken suddenly in his office. He was graduated from the R.C.D.S. of Ontario and following graduation practised in Ottawa for a number of years and then went to Carp where he lived for twenty years. Fifteen years ago he returned to Ottawa, acting as registrar for the County of Carlton, until six years ago when he again established a dental practice.

He was active in the Carp Agricultural Society and belonged to the Masonic Order of Loyal Orange Lodge and the Independent Order of Foresters.

Dr. Hunt is survived by his widow, one son and one daughter.

W. G. Robertson, of Colborne, Ontario, aged 66, died March 6. He was graduated from the R.C.D.S. of Ontario in 1903. He began to practise in Colborne immediately after his graduation and continued there until recently when he became ill. He was a member of the Provincial House for Northumberland from 1926-1929, and also served on the township and county councils. During that past few years he also ran a canning factory.

Dr. Robertson is survived by his widow, a son, Dr. F. G. Robertson, of Cobourg, and a daughter.

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J. W. Hagey, of Kitchener, Ontario, aged 64, died suddenly when returning home after addressing a political meeting at St. Clements. He was graduated from the R.C.D.S. of Ontario, and began to practise at Innisfail, remaining there until 1914 when he joined the Army Dental Corps. Later he commenced practice in Kitchener and served for a number of years as Kitchener school dentist.

Dr. Hagey is survived by his widow, one son, three daughters and two sisters.

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Albert E. Knapp, of Kingston, Ontario, died in February. He was graduated in Arts from Queen's University in 1895 and from the Royal College of Dental Surgeons of Ontario in 1902.

Dr. Knapp was a Mason, an Oddfellow, an enthusiastic bowler and a faithful worker in the church and young people's organizations.

. . . SECTION FRANÇAISE . . .

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Obturation d'un Canal Radiculaire

par ALCIDE THIBAUDEAU, D.D.S.

Il y a déjà 13 ans que je donnais à la Société Dentaire de Montréal le résultat de mes premières expériences sur le traitement des abcès par l'Ionisation.

Depuis, les faits se sont précisés, le traitement s'est répandu, et a connu des échecs injustifiés et injustifiables dont il faudra parler un jour. Pendant cette longue expérience nous avons constaté que les ciments, dits porcelaines synthétiques, font des ravages énormes dans les dents antérieures et sont la cause de 70 à 80% des abcès de ces mêmes dents. De cela aussi il faudra bien dire un mot et peut-être même se demander si cette sorte d'obturation ne devrait pas disparaître de notre pratique quotidienne. Pour aujourd'hui nous nous contenterons de dire que les canaux mal remplis sont toujours une cause de récidive après traitement d'Ionisation et toujours une cause d'infection apicale après n'importe quel traitement radiculaire.

Il ne peut être question ici d'un canal dont la partie apicale seule serait restée vide. Selon la théorie de Davis, dans la majeure partie des cas, ce tout petit bout de canal qui ne correspond en somme qu'à l'épaisseur du cément, s'obture de lui-même de cellules cémentoblastes. Encore n'est-il pas assez profond pour que de nouvelles bactéries puissent s'y développer à l'abri du système de défense naturelle qu'est la phagocytose.

Il s'agit donc ici des canaux à moitié remplis ou dont la chambre pulpaire seule a été obturée. Il est bien vrai que l'on a trouvé de ces cas sans la moindre trace d'infection, mais ce sont des phénomènes très rares qui confirment la règle générale.

Quand un canal reste ouvert ou est simplement rempli de substances poreuses et

inertes, il s'y fait une infiltration des liquides de la circulation lymphatique où des microbes de passage pourront s'arrêter et se développer sans le moindre dérangement.

J'avoue, que remplir un canal parfaitement jusqu'à l'apex à l'aide de petites tiges métalliques droites et lisses, n'est pas toujours facile. Bien souvent l'air emprisonné empêche les substances obturatrices de progresser dans le canal et donne l'impression d'une obturation terminée et parfaite. La radiographie hélas! nous révèle le contraire.

Il existe pourtant un moyen bien simple de remplir un canal rapidement et complètement. Il s'agissait d'y penser. En 1927, pendant que je tournais la manivelle d'un instrument à presser des fruits, je notai l'étrange analogie entre cet instrument et un alésoir de Kerr dans une dent. En effet cet appareil est composé d'un long cylindre à diamètre décroissant, terminé par un tube et dans lequel tourne une vis sans fin, adaptée au cylindre tout comme dans le hache-viande. Aussitôt qu'une substance quelconque s'engage dans les pas de la vis elle est immédiatement poussée vers l'extrémité du tube. Il me vint tout de suite à l'esprit qu'un alésoir de Kerr (Kerr pulpe canal reamer) dans un canal dentaire pouvait fournir double emploi. D'abord celui pour lequel il est fait, c'est-à-dire le redressement de l'intérieur des canaux et ensuite d'appareil à les remplir; à la seule condition de faire tourner le moteur à la renverse. L'alésoir alors agit comme la vis du hache-viande et pousse la substance obturatrice vers l'apex avec sûreté et rapidité.

Évidemment il faudra choisir l'alésoir qui convient au canal et dans ce but en avoir de différentes grosseurs. J'ai pu m'en procurer chez un de nos fournisseurs, une boîte contenant les Nos 4, 5, 6, 8, 10, 12. Comme avant chaque traitement il est toujours recommandable d'élargir et de redresser le canal, on retiendra donc pour le remplir le dernier alésoir dont en vient de se servir. Important: pour le remplissage du canal, faire tourner l'alésoir en sens contraire à l'alésage.

L'Ablation des Corps Etrangers Logés dans le Sinus Maxillaire

par GERARD DE MONTIGNY, B.A., D.D.S., M.S.D.

Description Du Sinus

Le sinus maxillaire est la cavité aérienne de l'os maxillaire. On peut le comparer à une pyramide creuse, dont la base répond à la face nasale, le sommet à l'apophyse malaire. Il est limité par cinq parois:

(1) *Antérieure ou juguale,* mince translucide; (2) *postérieure,* également plus épaisse, qui limite en avant la fosse zygomatique; (3) *supérieure,* paroi ophtalmologique, dédoublée par la gouttière et le canal sous-orbitraire; (4) *inférieure,* très variable de formes et de dimensions, souvent partagée en compartiments ou fosses, habituellement placée au même niveau que le plancher nasal et en rapport avec les nerfs dentaires, qui n'en sont séparés que par une paroi très mince; (5) *interne,* ou base, paroi nasale très mince. (Fig. 1).

La capacité ordinaire du sinus est environ de 10-12 cc chez les femmes et de 16-18 cc chez les hommes, avec une hauteur de 3.5 cm, une largeur de 2.5 cm, et une profondeur de 3.2 cm.

Ces dimensions sont rarement constantes et on trouve des variations très fréquentes, qui tiennent des caractéristiques particulières de chaque individu.

Cette cavité sinusale est tapissée par

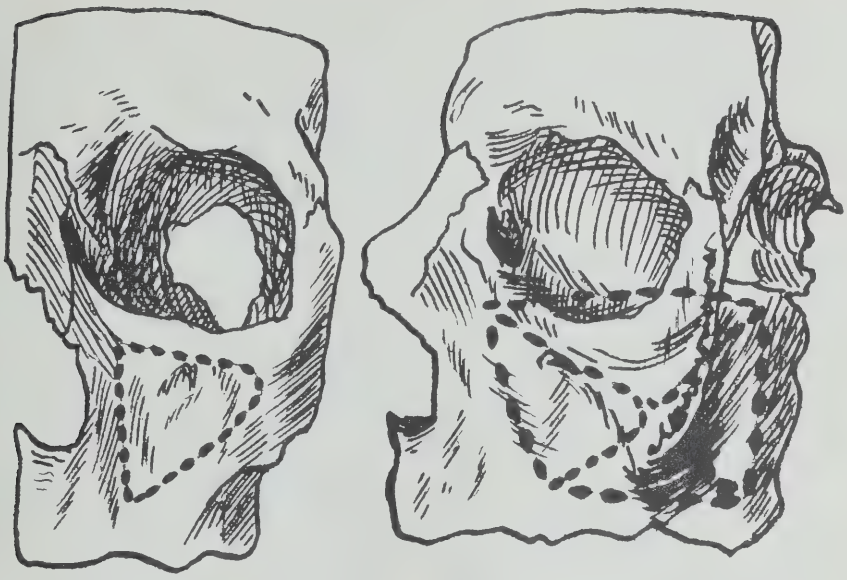

Fig. 1—Dimension et forme du sinus dans le maxillaire supérieur. (Skillern)

une muqueuse, qui s'insinue dans les replis et couvre l'os dans toute son étendue, elle n'est qu'un prolongement de l'épithélium nasal, de même nature que la muqueuse, qui recouvre l'os des autres cavités sinusales du crâne.

Elle est formée de trois variétés de tissus, une couche épithéliale ciliée, une couche intermédiaire (tunica propia) et le périoste qui est en contact intime avec le tissu osseux. L'épaisseur de cette muqueuse est minime: environ .02 mm.

Le sinus du maxillaire a une ouverture naturelle, qui communique avec le nez; cet ostium est situé à l'angle antéro-supérieur du sinus, à l'union des parois supérieure et interne, dans le méat moyen entre le cornet inférieur et le cornet moyen.

Le diamètre de cette communication varie de 2 mm à 1.7 cm par 1.1 cm, la normale étant de la grosseur d'un pois. L'intérieur du sinus n'est pas toujours uni, mais présente souvent des irrégularités, ou des cloisons qui se trouvent habituellement au plancher ou à l'angle supéro-interne.

Relations Anatomiques Des Dents Et Du Sinus

Les relations des racines dentaires avec le sinus ont été bien décrites par Zuckerkandl, Cryer et Underwood avec les constatations suivantes: Le plancher du sinus normal s'étend de la 1ère prémolaire à la 3ième molaire.

Ce plancher n'est pas parallèle au procès alvéolaire, mais au contraire recourbé vers le haut; l'apex des racines de certaines dents vient donc en relation plus étroite avec cette paroi du sinus; les dents placées aux extrémités antérieure ou postérieure du sinus en sont séparées par une épaisseur appréciable d'os. Les deux dents les plus rapprochées du sinus sont la 2ième prémolaire et la 1ère molaire. Les 2ième et 3ième molaire ont parfois leur racine à proximité de l'antre d'Highmore.

La distance entre les apex de ces racines et le plancher du sinus varie à l'infini, selon l'épaisseur d'os, qui les sépare.

Certains spécimens laissent voir une couche osseuse de plusieurs millimètres tandis que d'autres ont des racines dentaires qui font saillie dans le sinus et qui ne sont recouvertes que par la muqueuse sinusale. (Fig. 2, 3).

Relations Pathologiques

Plusieurs dents, molaires, prémolaires, et quelquefois même canines ont avec la paroi inférieure de cette cavité des rapports bien intimes. Le fond osseux des alvéoles n'est souvent formé que de minces lamelles, qui présentent souvent des pointes de déhiscence. C'est dire combien ces infections pulpaires ou alvéolo-dentaires se propagent facilement dans la cavité sinusienne.

Un abcès de l'apex, une fongosité radiculaire, un kyste appendiculaire, une arthrite alvéolo-dentaire peuvent devenir la cause de suppurations déversées dans le sinus. Le pus en s'accumulant entre l'apex, la dent et la paroi osseuse du sinus perfore celle-ci ou la décalcifie grandement, en diminuant son épaisseur et sa résistance aux infections sous-jacentes.

La muqueuse du sinus au contact de cette poussée inflammatoire ne reste pas indemne et prend part aussi au processus pathologique; elle se perfore et l'apex des dents entre en relation directe avec le sinus. Les auteurs diffèrent d'opinion quant à la proportion de maladies du sinus d'origine dentaire. Autrefois, on était d'avis que tous les empyèmes du sinus étaient causés par les dents; mais de nos jours, on s'accorde à attribuer aux dents environ 20 pour cent des infections sinusiennes. Ces affections dentaires se transmettent au sinus par: (1) continuité directe (dent cariée) (2) par une périostite (3) par le courant sanguin (4) par une ostéite circonscrite ou diffuse de procès alvéolaire (5) par la rupture d'un kyste radiculaire infecté (6) par la pénétration d'un corps étranger.

Pénétration D'un Corps Etranger

Les corps étrangers, dont nous voulons parler ici, sont les racines des dents qui sont projetées dans le sinus au cours

Fig. 2—Couche épaisse d'os entre les dents et le sinus. (Skillern)

Fig. 3—Racines de dents se projettant dans le sinus. (Skillern)

d'une extraction. Des substances *aseptiques* peuvent séjourner dans le sinus sans causer de dommages; les corps étrangers doivent être infectés et irriter la muqueuse sinusienne pour amener un empyème. Mais les racines dentaires sont toujours considérées comme des substances irritantes et très susceptibles de causer une infection, à cause de la matière pulpaire du canal radiculaire.

Il arrive trop souvent qu'un dentiste, au cours de l'ablation de racines, pousse une de celles-ci dans le sinus. Des crânes possèdent de ces racines de dents, qui se projettent dans le sinus; d'autres n'ont qu'une mince paroi osseuse entre les dents et le sinus. Des fragments de dents sont poussés dans le sinus, quand l'exodontiste applique sur une de ces racines une force verticale ou directe avec son élévateur; ou bien, avec son davier, le dentiste tente de saisir les deux côtés de la racine; les mords glissent et exercent un mouvement de pression, qui enfonce la racine dans l'épaisseur du maxillaire.

Cet accident peut arriver, si l'opérateur n'a pas assez ouvert les mords de sa pince, en la plaçant directement sur la surface de la dent. Parfois, quand une pression même légère est appliquée avec un élévateur sur une racine infectée, la lamelle osseuse au dessus de cette racine cède spontanément, parce qu'elle est décalcifiée. Des dents complètes ont été poussées dans des sinus dont le plancher était détruit par une infection apicale.

Technique Opératoire Pour Retirer Des Fragments De Dents Logés Dans Le Sinus

Quand une dent ou une partie de dent ou encore un morceau d'instrument est entré dans le sinus, il faut à tout prix en faire l'ablation le plus tôt possible. Si ce corps irritant n'est pas enlevé, on verra apparaître, dans un délai parfois assez court, des symptômes d'irritation de la muqueuse sinusale, suivis d'infection grave ou de troubles névralgiques. La pénétration d'un corps étranger dans le sinus est susceptible d'occasionner des dommages considérables; aussi, au moindre doute de la présence d'une substance irritante dans le sinus, le stomatologiste doit-il intervenir pour s'assurer de la non-présence ou de l'évacuation de cet irritant. Invariablement, les symptômes d'une sinusite aiguë apparaissent dans les quelques jours qui suivent l'accident; cette infection se manifeste par les signes infectueux généraux: (malaise général, élévation de la température, anorexie, nausées, vomissements, constipation, urine fortement concentrée et colorée, douleurs).

Le symptôme le plus fréquent d'une sinusite est l'impression de lourdeur dans le sinus, qui augmente quand la tête est penchée en bas et en avant. Des maux de tête assaillent le patient. Plus tard, la muqueuse du sinus, sécrète du pus et la sensation de pesanteur, éprouvée par le sujet au début de son affection, deviendra plus forte avec écoulement de pus par la narine du côté intéressé. Il faut donc que ce fragment de dent soit enlevé dans le plus bref espace de temps possible, après son invasion dans l'antre d'Highmore.

Que doit faire le dentiste, qui a l'impression d'avoir enfoncé une racine dans le sinus? Il doit d'abord changer cette impression en certitude en faisant des recherches pour retrouver cette racine qui manque. Elle peut avoir été crachée par le patient; elle peut être logée sous la langue ou dans le vestibule de la bouche; le patient l'aura peut être avalée.

Il faut que le dentiste, en examinant ses fragments de dent se rend bien compte de l'état de sa dent, en réunissant les morceaux qu'il a enlevés du maxillaire.

Cette racine introuvable est peut être sous la muqueuse, soit entre le tissu fibreux de la voûte palatine et l'os du palais, soit entre la muqueuse labiale et le tissu osseux du côté vestibulaire. On se rend compte de la présence de la racine sous les muqueuses en soulevant avec un décortiqueur le tissu mou des deux côtés de l'alvéole et en explorant les régions à l'aide d'un explorateur.

Si la racine reste introuvable, elle s'est probablement refugiée dans le sinus.

Il existera alors entre la cavité buccale et le sinus une communication du diamètre du bout de cette racine. Cette ouverture laissera passer l'air que le patient soufflera par le nez, en se tenant les narines bouchées; ou encore, si à l'aide d'une seringue à longue canule, on introduit sous pression, par ce trajet une solution antiseptique, ce liquide reviendra en partie par le nez du patient, en passant par l'ostium du sinus.

Un instrument long et étroit (trocart) introduit par l'ouverture pourra être enfoncé à une profondeur exagérée, comparable en rien à la profondeur normale de l'alvéole.

Si il y a communication entre le sinus et la cavité buccale et si la racine est disparue, il y a grande probabilité que la racine soit logée dans le sinus.

Tant pour vérifier la présence de la racine que sa position dans la cavité sinusale, il nous faut alors une radiographie. La radiographie ne peut parfois pas localiser ou révéler la présence d'une racine dans le sinus; une radiographie négative dans ces cas n'est pas un facteur rassurant et si on veut éviter les ennuis futurs, il faut ouvrir le sinus pour en faire l'exploration. Les films intra-oraux sont supérieurs aux plus grandes plaques extra-orales pour ce genre de recherche; les rayons-X n'auront qu'à traverser la paroi externe du maxillaire avant d'arriver au corps étranger. Si des radiographies antéro-postérieures sont utilisées, les rayons-X devront pénétrer l'occipital, le condyle, l'apophyse coronoïde, la tubérosité du maxillaire. Les ailes du spénoïde, l'ethmoïde avant d'arriver au corps recherché. Avec celles-ci il y a trop de superposition osseuse pour qu'on puisse identifier un corps de volume minuscule. Les films dentaires permettent aux rayons-X de traverser le minimum de tissu osseux entre le corps que nous recherchons et la plaque impressionnable. Ce film dentaire nous procure plus de détails, plus de clarté, nous permet d'obtenir une localisation plus précise de fragment, grâce aux points de repaire, (dents présentes) qui apparaissent sur la radiographie. Les radiographies extra-orales sont précieuses en oto-rino-laryngologie pour la comparaison des deux sinus, mais de moindre valeur pour la localisation précise de corps étrangers du volume d'un apex.

Des points de repaire, tels que: aiguilles, trocarts, explorateurs etc. peuvent être mis en place pour situer davantage le bout de racine. Quand la localisation du corps étranger est faite, il est à conseiller de laisser les tissus intacts dans la mesure du possible. Il est préférable, il nous semble, de rechercher ce corps étranger par l'ouverture qui lui a donné passage, car la racine réside presque toujours au pourtour de l'ouverture alvéolaire. (Fig. 4).

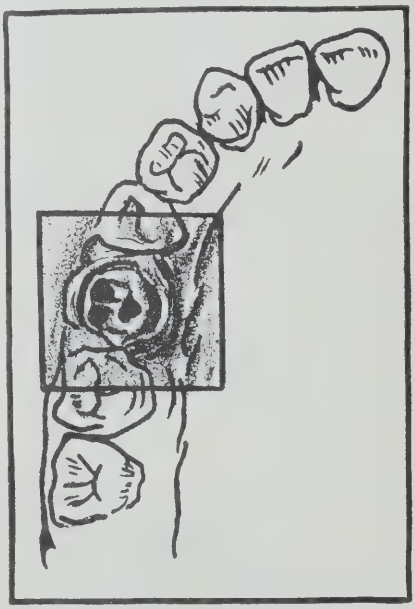

Fig. 4—Méthode d'exposer les alvéoles des racines. (Berger)

Il faut écarter les tissus mous, c'est-à-dire, la gencive et la muqueuse palatine qui encombrent l'ouverture; il faut ensuite agrandir l'ouverture existante qui est du diamètre de l'alvéole d'une des racines. On réunit les deux ou trois

alvéoles de manière à n'en faire qu'une seule. (Fig. 5).

Avec une fraise chirurgicale, ronde ou conique, il faut agrandir l'ouverture qui a donné passage au corps étranger; la racine y a été enfonçée sous pression et son ablation doit être faite sans force. On peut comparer la pénétration de la racine à l'enfoncement d'un bouchon dans une bouteille; il est bien évident qu'on ne pourrait faire sortir ce bouchon par le même orifice sans y mettre de pression. Cette racine sera souvent trouvée au pourtour de l'ouverture; s'il s'agit d'un fragment de racine, on le trouvera souvent attaché à quelques fibres de tissu par de légers mouvements avec une petite curette, une précelle longue et fine ou un instrument en forme de crochet, on pourra déloger cette racine de son antre. Quand on ne réussit pas à l'enlever de cette façon, on peut injecter sous pression à l'intérieur du sinus par l'ouverture existante une solution antiseptique; la solution à son retour entraîne souvent avec elle la racine recherchée.

On tente encore d'atteindre la racine, en enfonçant dans le sinus par l'ouverture alvéolaire une longue mèche de gaze. (½ pouce). En la retirant, on trouvera parfois la racine accollée à cette mèche.

La racine peut parfois être délogée en branlant la tête et demandant au patient de souffler par le nez en se tenant les narines bouchées.

Si ces méthodes ne réussissent pas, la cloison nasale du sinus sous le cornet inférieur est perforée; des lavages sous pression sont faits par cette ouverture; la solution en s'échappant par l'ouverure buccale entraînera la racine.

Ce n'est qu'après la faillite de ces méthodes qu'une opération radicale est conseillée; ces techniques, connues sous le nom de Caldwell-Luke, Denker, Kuster consistent dans la perforation de la paroi du sinus dans la fosse canine.

Mais ces opérations offrent certains inconvénients, qui sont les suivants:

(1) L'examen prouve que dans plusieurs cas, la paroi antérieure c'est-à-dire la fosse canine, est la plus épaisse.

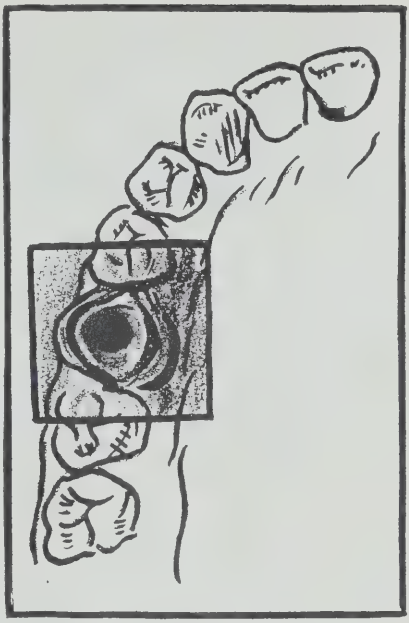

Fig. 5—Union des trois alvéoles en une seule. (Berger)

(2) Cet endroit forme le coin le plus antérieur du sinus; l'accès et l'exploration des parties postérieures, en particulier du plancher de cette cavité ou des involutions formées par les os des cornets, est bien difficile sinon impossible.

(3) Les apex des canines et prémolaires sont parfois lacérés par l'opération.

(4) Les sources vitales des incisives et des canines sont parfois coupées et ces dents deviennent des dents mortes qu'il faut traiter par après.

Nous préférons récupérer la racine par l'alvéole (methode Cowper) parce que les tissus sont laissés à peu près dans leur intégrité normale. Après que la racine est enfoncée dans le sinus, nous sommes en présence d'une ouverture alvéolaire.

La méthode Caldwell Luke crée une autre ouverture dans le sinus, qui peut se fistuliser aussi bien que l'ouverture alvéolaire, quoique cette éventualité soit moins probable. Parfois tous nos efforts pour retracer la racine sont vains et elle

peut être logée dans la membrane qui tapisse le sinus et l'os lui-même.

Il peut arriver que cette racine ne soit pas recouvrée. Dans ces cas, trois hypothèses peuvent se présenter:

(1) La racine est revenue par l'orifice d'entrée et elle est passée inaperçue dans les débris, les retours de la solution et de la gaze.

(2) La racine sous la pression produite par le liquide injecté est rejetée dans le nez par l'ouverture naturelle du sinus et repose dans le méat moyen au dessus du cornet inférieur; cette éventualité est possible, quand il s'agit d'une racine de faible dimension, un apex par exemple.

(3) La racine a été avalée ou mouchée par le patient, à son insu.

Terminaison De l'Opération

Quelques auteurs préconisent de refermer le sinus sans insérer de mèche et sans faire de lavages post-opératoires.

Mais en fermant définitivement la plaie, on laisse à l'intérieur du sinus des dépôts sanguins et des exsudats de sérum (résultats de l'inflammation) qui pourront être une source d'infection.

Si tous les débris ont été enlevés et si la plaie est bien nettoyée et aseptisée il n'y a pas un danger bien grand de suppuration.

Après la fermeture de l'orifice, le patient mouchera peut être des filaments de sang durant quelque temps après l'intervention.

S'il n'y avait pas d'infection apicale, ni sinusienne, tout entrera dans l'ordre dans une quinzaine de jours. Des inhalations peuvent hâter la guérison. Le sinus doit être fermé immédiatement après l'opération, en soulevant la muqueuse du côté palatin et du côté jugual pour joindre ensemble ces deux lambeaux.

Pour plus de sécurité, on peut insérer une mèche entre les points de suture et pratiquer nos lavages par cet endroit, qui constitue un drain pour les exsudats et le sang amassé à l'intérieur du sinus.

Le premier pansement se change au bout de 48 ou 72 heures; il faut l'enlever

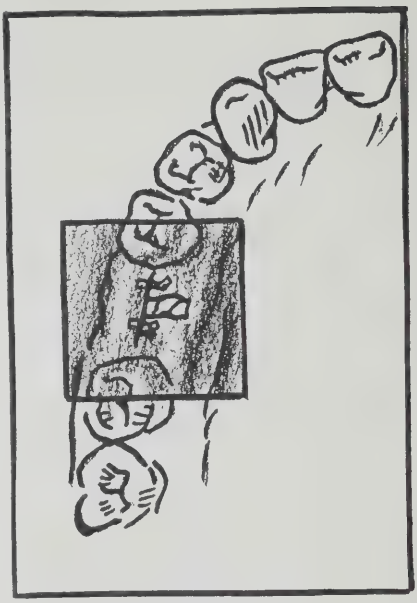

Fig. 6—Fermeture de l'alvéole et insertion d'un drain. (Berger)

délicatement pour prévenir l'irritation des tissus périphériques.

Le pansement est renouvelé durant une semaine ou 10 jours. Une ouverture dans le sinus chez une personne dont la résistance vitale est normale guérit sans complications subséquentes; chez ceux dont la vitalité est médiocre, on peut voir surgir une infection grave. Ici comme ailleurs dans le corps humain, quand seules des bactéries sont introduites, elles sont facilement éliminées et détruites.

En présence de débris cellulaires qui protègent ces bactéries contre les agents prophylactiques ou contre la phagocytose, en favorisant leur incubation ou leur multiplication, les bactéries peuvent prendre le haut du pavé.

Si une infection se déclare dans le sinus, il faut continuer les lavages et l'introduction de drains, jusqu'à la disparition des symptômes.

Si à la suite de nos interventions, une fistule persiste dans la mâchoire, une opération facile et simple est faite pour fermer cette ouverture.

En Marge de l'Introduction à l'Etude Pharmacodynamique des Hémostatiques par la Méthode de la Corrélation *

par J. ROSKAM

Laboratoire de Pathologie médicale, Université de Liège.

(Suite)

TABLEAU XIII.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'une solution à* 2 *p.* 1000 *(lapins CCCLXXXIX et CCCXC) et à* 4 *p.* 1000 *(lapins CCCXCI et CCCXCII) de "lécithine Com haire", sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CCCLXXXIX	CCCXC	CCCXCI	CCCXCII
T.S. moyens témoins	3'34"	3'24"	2'32"	3'58"
T.S. moyens modifiés	4'37"	4'36"	3'22"	6'51"
Ecarts entre ces T.S.	+ 63"	+ 72"	+ 50"	+ 173"
Moyenne des écarts observés:	+ 85"			

TABLEAU XIV

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *d'une solution à* 2 *p.* 1000 *(lapins CCCXCVIII et CCCIC) et à* 4 *p.* 1000 *(lapins CCCC et CCCCI) de "lécithine Byla purifiée", sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CCCXCVIII	CCCIC	CCCC	CCCCI
T.S. moyens témoins	6'44"	3'51"	2'26"	5'48"
T.S. moyens modifiés	10'11"	5'54"	4'06"	7'50"
Ecarts entre ces T.S.	+ 207"	+ 123"	+ 100"	+ 122"
Moyenne des écarts observés:	+ 138"			

Ici encore, les résultats fournis par les techniques associées de l'infiltration et du lavage des plaies correspondent aux données, plus précises, apportées par notre méthode de la corrélation.

12. *Acide sulfurique dilué.*

Il en va de même en ce qui concerne le pH.

Nous avons signalé, dans notre mémoire des Archives internationales de Pharmacodynamie et de Thérapie, que le lavage des plaies avec une eau acidifiée au pH: 5 par addition d'acide sulfurique dilué hâte l'arrêt des saignements provoqués. Celui-ci se trouve par contre retardé si l'eau de lavage a été portée au pH: 9.2 par addition de soude caustique diluée.

Infiltrons les régions de l'oreille à inciser au moyen d'une solution physiologique que de petites quantités d'acide sulfurique auront portée au pH: 5.2 et nous verrons — ainsi qu'en fait foi le tableau XV — se contracter le temps de saignement moyen.

* *Extrait de la* Revue Belge des Sciences Medicales, t. X, N° 3, mars 1938.

TABLEAU XV.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *de solution physiologique acidifiée au pH:* 5.2, *sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CCCVVVIII	CCCXXXIV	CCCXXXV	CCCXXXVI
T.S. moyens témoins	3'33"	5'04"	3'38"	3'43"
T.S. moyens modifiés	2'05"	4'33"	1'55"	3'20"
Ecarts entre ces T.S.	— 88"	— 31"	— 103"	— 23"
Moyenne des écarts observés:	— 61"			

L'infiltration du tissu cellulaire sous-cutané avec de la solution physiologique alcalinisée, au moyen de soude caustique, au pH: 9.2 provoquera inversement l'allongement des bleeding-times. En fait foi le tableau XVI.

TABLEAU XVI.

Effet de l'infiltration des tissus à inciser à l'aide de 0.6 cm^3 *de solution physiologique alcalinisée au pH:* 9.2, *sur le temps de saignement moyen du lapin.*

Numéros d'ordre des Lapins	CCCXLI	CCCXLII	CCCXLIII	CCCXLIV
T.S. moyens témoins	2'54"	4'03"	2'10"	2'57"
T.S. moyens modifiés	3'33"	4'41"	2'56"	4'38"
Ecarts entre ces T.S.	+ 39"	+ 38"	+ 46"	+ 101"
Moyenne des écarts observés:	+ 56"			

Commentaires et Conclusions

Tels sont les plus intéressants des résultats auxquels nous conduisirent nos expériences d'infiltration.

Faute d'un contrôle statistique adéquat, ils sont loin d'atteindre à la précision des données que nous avons publiées dans notre "Introduction à l'étude pharmacodynamique des hémostatiques par la méthode de la corrélation".

Par sentiment peut-être plus encore que par raison, nous sommes néanmoins enclins à les considérer sinon comme absolument certains, du moins comme des plus probables.

La plupart d'entre eux sont, en effet, confirmés par notre étude — dûment assise, elle, sur une base statistique appropriée — des hémostatiques administrés à même le torrent circulatoire ou en lavage des plaies. En fait foi le tableau XVII où figurent les moyennes des écarts observés au cours de nos différents essais.

TABLEAU XVII

Moyenne des écarts observés entre les temps de saignement moyens témoins et les temps de saignement moyens modifiés au cours de nos recherches pharmacodynamiques sur les hémostatiques.

Mode d'administration du médicament étudié	I Voie intra-veineuse	II Lavage des plaies	III Infiltration des tissus à inciser
Calcium Sandoz	+ 84"		+ 345"
Peptone de Witte	+ 54"		+ 174"
Hémoplastine	+ 24"		+ 193"
Claudène	+ 3"		+ 84"
Gélatine	+ 30"		+ 10"
Sérum CHC13		— 1"5	+ 25"
Adrénaline	+ 87"5	— 4"	+ 60"
Ephédrine	+ 64"	+ 347"	+ 762"
Coagulène	— 57"	— 46"	— 43"
Céphaline	— 51"		— 38"
Lécithine Comhaire	+ 49"		+ 85"
Lécithine Byla pur.	+ 59"		+ 138"
pH : 5.2		— 39"	— 61"
pH : 9 et 9.2		+ 166"	+ 56"

(Rappelons que pour les expériences dont les résultats sont relatés dans les colonnes I et II, l'écart statistiquement possible est, d'après notre étude de la corrélation des temps de saignement de l'une et l'autre oreille, égal à ± 20″)

Même à défaut de semblable confirmation, des prolongations du temps de saignement moyen aussi considérables et aussi concordantes dans leur intensité que celles qui résultèrent de l'infiltration des oreilles de lapins à l'aide de peptone de Witte, d'hémoplastine, de calcium Sandoz, plus encore d'éphédrine ou de fibrogène, nous paraissent témoigner de façon quasi certaine, de l'entrave apportée par ces médicaments à l'hémostase spontanée, dans les conditions où nous les avons utilisés.

En tout état de cause, compte tenu de l'importance des modifications du temps de saignement moyen observées ainsi que de la confrontation des résultats de la présente étude avec ceux que nous obtînmes en recourant à la méthode de la corrélation, nous nous croyons autorisés à tirer de nos recherches les conclusions suivantes:

1° L'infiltration des tissus à inciser à l'aide de fibrogène, de solutions aqueuses de chlorhydrate d'éphédrine lévogyre, de glucono-galactogluconate de calcium, de peptone de Witte, de phosphatides du type "lécithine", de chlorhydrate d'adrénaline synthétique ainsi que d'hémoplastine et de solution physiologique de pH: 9.2, a quasi certainement pour effet de prolonger, dans certains cas de façon extrêmement considérable, le temps de saignement moyen.

2° Selon toute probabilité, semblable application locale de claudène, de sérum chloroformique ou d'une solution aqueuse neutralisée de gélatine entrave également l'hémostase spontanée ou se trouve dépourvue d'action sur ce phénomène.

3° Par contre, le temps de saignement moyen paraît bien être nettement et constamment raccourci par l'infiltration des tissus à inciser au moyen de solutions aqueuses de coagulène et de céphaline, ainsi que de solution physiologique de pH: 5.2.

D'un point de vue absolu, ces conclusions ne valent évidemment que dans les conditions d'expérimentation et d'observation que nous avons pris soin de préciser dans notre mémoire. En dépit des réserves que nous avons cru devoir formuler à leur sujet, nous ne pouvons toutefois nous empêcher de considérer qu'elles méritent une particulière attention. Tout comme l'application des hémostatiques en lavage des plaies, leur administration locale, en infiltration des tissus à inciser, nous paraît, en effet, diminuer l'importance du facteur posologie en fonction de l'espèce animale soumise à l'expérimentation. Aussi bien les renseignements apportés par le présent travail ainsi que ceux découlant de nos expériences de lavage des plaies à l'aide de médicaments réputés hémostatiques, nous semblent-ils susceptibles d'applications thérapeutiques assez immédiates.

*
* *

Ce travail a été exécuté avec l'aide de subsides accordés par le Patrimoine de l'Université de Liége.

Le congrès des dentistes de langue française d'Amerique du Nord

L'Association des Anciens Elèves de l'Université de Montréal a décidé d'organiser pour cette année, son 6ème congrès des Dentistes de langue française de l'Amérique du Nord.

Vu l'immense succès remporté l'an dernier par un congrès de ce genre, les organisateurs ont décidé de ne pas laisser refroidir l'enthousiasme et de jeter tout de suite les bases d'une organisation similaire pour cette année.

De plus on nous offre cette année une heureuse nouveauté.

Au lieu de tenir ces réunions à Montréal, le congrès se tiendra aux Trois-Rivières.

Le pittoresque de cette ville canadienne ne manquera pas d'y attirer de nombreux confrères.

Tous ceux qui auraient quelques suggestions à faire ou renseignements à demander peuvent d'ici le mois prochain s'adresser, soit au Dr A. L'Archevêque, ou au Dr Paul Geoffrion.

La Rédaction.

IN COMMEMORATION OF MOTHER'S DAY

More than two hundred years before Christ a powerful ruler of Egypt expended nearly $1,000,000 in the erection of a marble tower four hundred feet high, on the island of Pharos, opposite Alexandria. He ordered that a marble tablet should be built into the wall near the summit, bearing his name in conspicuous letters. When the vast structure was completed, it was considered one of the seven wonders of the world. From its top a light shone by night as a beacon to sailors far out on the Mediterranean. By day it was visited by thousands of curious travellers, who read on the tablet the inscription "Ptolemy II, Philadelphus." For many years the name of the royal founder stood out in bold relief, but it was written on mortar made to imitate marble, spread over the face of the tablet. Time gradually removed the inscription; the mortar, crumbling, fell; and then, carved in enduring stone, appeared the name of the Greek architect, Sostratus, who had secretly taken this course to perpetuate his own name as the true author of the beauty, strength, and grandeur expressed by the lofty pile.

So many an eminent man in the zenith of his fame is regarded as the product of some party or system, but when the label grows dim and disappears, there stands out in the life the deeply graven name, "Mother," perhaps all unknown to the crowd which applauds her son.—Orison Swett Marden.

D. W. GULLETT, D.D.S.,
Picton, Ontario.

Recently appointed Secretary of the Board of the R.C.D.S. of Ontario.
Served Overseas with the 73rd Battery in the Great War.
Past President of Picton Kiwanis Club and Tennyson Literary Club.
Past Master, Prince Edward Lodge, A.F & A.M.
Past First Principal, Pr. Ed. Chapter R.A.M.
Treasurer of Picton United Church.
District Representative of the R.C.D.S. since 1936.
Member of the Picton School Board, Library Board and Hospital Board.

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A Natural Method of Establishing Normal Heavy Function and Elimination of Traumatogenic Occlusion

by W. J. LINGHORNE, D.D.S. (Toronto Group)

"OCCLUSION is the basis of the practice of dentistry." The Hall Research group found this fundamental premise true in every branch of dentistry.[1] (Kurth).

For the past twenty years intensive research and study has been given to the problem of the traumatogenic occlusion as it affects the health of the supporting tissues of the teeth.

The effect of traumatogenic occlusion is an important factor in all branches of dentistry. It is quite apparent in the periodontal field but is also important in prosthetic dentistry.

Definitions

Occlusion may be defined as the contact relation of the masticatory surfaces of the teeth.

Trauma means injury to the tissues produced mechanically.

Therefore, a traumatogenic occlusion is an occlusion which under biting pressure produces an injury to the supporting tissues of the teeth.[2]

Review of Traumatogenic Occlusion in Periodontia

Traumatogenic occlusion is considered by Box and other prominent periodontists to be a primary aetiological factor in eighty per cent of periodontal disease.

The theory of traumatogenic occlusion is that due to various causes all the planes of the cusps do not engage simultaneously with the cusps of the opposing teeth in the grinding and triturating movement of the jaw. This causes excessive individual loading of the teeth with side pressures, making them act as levers with the fulcrum at the alveolar crest. This overloading of the tissue at this point causes trauma and results in the breaking down of the bone adjacent to the area of trauma. This trauma makes possible bacterial invasion and formation of the periodontal pocket.

So far the treatment has been to grind the cusps with a stone, locating the high spots with carbon paper, so that in all masticatory movements of the jaw the planes of all the cusps engage simultaneously. Box has stated that he is of the opinion that the elimination of the traumatogenic occlusion by this method is probably beyond the scope of the average dental practitioner.[2]

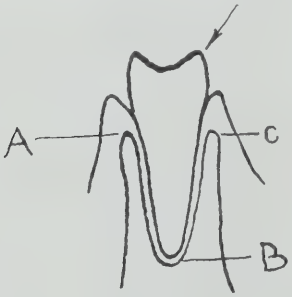
Explanation of Traumatogenic Occlusion

In sketch No. 1, it will be seen that a force applied in the direction of the longitudinal axis of the tooth is transmitted through the periodontal mem-

No. 1
Axial Loading

brane to the bone, and due to the cone shape of the root is distributed equally over the whole surface of the supporting bone. This is axial loading.

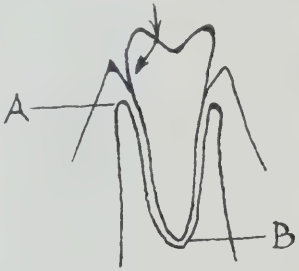
In sketch No. 2, it will be seen that a force applied in a direction other than that of its longitudinal axis is transmitted through the periodontal membrane in such a manner that it is sustained by only a small part of the surface of the supporting bone. The tooth acts as a lever with its fulcrum at A. This will be referred to as oblique loading.



No. 2
Oblique Loading

Thus it is apparent that in axial loading the force of the muscles of mastication is sustained comparatively equally over the whole surface of the supporting bone and periodontal membrane, while in oblique loading only a small fraction of the surface of the supporting bone and membrane sustains the same force. Trauma is caused by the overloading of the tissues at this point (usually the alveolar crest) with the subsequent breaking down of the bone at the point of overloading. At A there is over compression of the membrane, while at C there is a stretching of the membrane. Both of these actions cause trauma.

In sketch No. 3, it will be seen that a force applied to the tooth in the direction of its longitudinal axis would be transmitted to the bone in a direction at right angles to the occlusal surface of the tooth. This changes axial loading to oblique loading. If the planes of the cusps were of equal length, and the jaw had a hinge joint, the cusps would counteract each other resulting in axial loading—but man has not that type of masticatory apparatus.



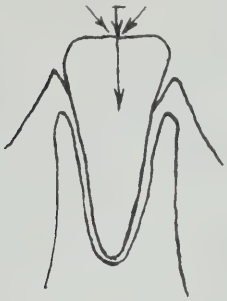
No. 3
Oblique Loading

In figure No. 4, with a comparatively flat tooth, force applied would be similarly transmitted to the bone at right angles to the occlusal surface, which would change oblique loading to axial loading and be sustained over the entire surface of the supporting bone.

It seems, therefore, that a flatter tooth is mechanically much more correct. But man has cusped teeth. This led the writer to evolve the following theory of what nature intended should happen.

Theory of Wear

Angle taught us that when the permanent teeth erupt, they are guided into their approximately correct position by the action of the muscles of the lips, cheeks and tongue until first contact is



No. 4
Axial Loading

made. The guidance of teeth in exact relationship to the opposing teeth is then taken over by the action of the incline planes of the cusps. The guidance of the teeth is completely dominated at this stage by the action of the incline planes. This is demonstrated by the fact that if the buccal cusp of the lower tooth should first contact the lingual cusp of the upper tooth on its lingual face instead of its buccal face, the lower would be forced to the lingual of the occlusion in spite of the action of the muscles of the tongue, and remain there. The action of the muscles of the lips, cheeks and tongue still function in correct arch formation but are superseded by the actions of the incline planes in the function of guidance as described above. The necessity for cusps on teeth during this period is quite apparent.

The second purpose of the cusps is to help maintain them in that position until there is sufficient strengthening and hardening in the supporting bone to maintain the teeth in their correct relationship without the aid of the interlocking cusps. Without cusps on teeth during this period this correct relationship would be lost as teeth drift easily in young bone.

The writer would like to suggest that the second purpose of the cusps, in maintaining the teeth in their correct position, is being taken care of, gradually and progressively, by the change in the supporting bone, until in adult life, the cusps having completely fulfilled their two functions of guidance and maintenance, have lost their reason for existing in their original form. During this period the cusps should be worn down gradually by the chewing of abrasive foods until finally in the adult, the time arrives when the supporting bone completely takes over the second function of the cusps and the latter disappear.

In the normal dentition the action of the muscles of the lips and tongue keep the anterior teeth in contact. At the completion of eruption, the overbite is equal to the height of the cusps of the posteriors. Thus, with the flattening of the cusps by wear there is a similar wearing of the anteriors with the corresponding reduction of the overbite. Therefore, with the wearing of the labial of the lower anterior, and the lingual surface of the upper anteriors, and the action of the muscles of the tongue and lips keeping the teeth in contact, they gradually change their relationship from an overlapping to an end-to-end occlusion. According to Campbell's observations it would appear that the main changes take place in the anterior region of the arches.

It is seen that the reason for cusps on teeth is gradually disappearing. Nature's plan was, that as the function of the cusps gradually diminished, the cusps themselves should gradually disappear. The only way the cusps could gradually disappear is by wear. Therefore, given the wear nature intended, an occlusion of this type would show some interesting results. There would be no premature engaging of cusps (individual loading), as the places of heaviest occlusion would be worn down first.

Secondly, as shown in sketch No. 5, there would be, with the flattening of the cusps, a gradual lessening of oblique loading with a corresponding increase

No. 5

in axial loading. The anterior teeth would tend to change their position from an overlapping to an end-to-end occlusion with its corresponding increase in axial loading. Thus, by wear, nature has taken care of the two causes of traumatogenic occlusion; viz., changed individual loading to collective loading; changed oblique loading to axial loading. Thus it may be seen why without wear there is so much periodontal disease. Box in writing on this theory states, "Deficient wear results in the persisting of interfering cusps that tend to produce individual loading of teeth. It also prevents the trend toward the development of normal axial loading with its attendant benefits. Wear, under normal conditions through the elimination of incline planes, is constantly tending to change from oblique to axial loading."[3]

The elimination of traumatogenic occlusion by wear also establishes heavy function with its attendant benefits to periodontal tissues.[4]

As the occlusion is being changed by wear there probably is a corresponding change in the temporo-mandibular joint, as with the elimination of the cusps there is a tendency to a wider lateral swing and a greatly increased muscular action. When approached by the writer with this supposition deduced from a limited number of observations, Dr. F. M. Lott, in a private communication, states, "On examining a number of wet specimens, the skull showing the most dental wear was the only one with a perfectly flat fossa and a correspondingly flat condyle path. Also, that the articulating disk was totally gone with the exception of a narrow rim that was completely off the bearing area. In other words, it was quite logical to examine this case and conclude that the wearing of the teeth had been accompanied by changes in the fossa and angle of the condyle path." Further research on this will be necessary before definite statements can be made.

Obviously, the reason for much of the periodontal disease is due to the lack of wear on the cusps, which in turn is due to the removal from the modern diet of nearly all abrasive elements. The obvious remedy is a dietary adjunct of some chewable material containing the missing abrasive elements to give the wear intended.

There are other causes of traumatogenic occlusion as it has been described, such as large overbites, bad inclination of teeth, etc., where even by extensive wear axial loading could not be attained. Even in these cases, however, wear would remove interfering cusps and tend to establish collective loading.

In 1924, having reached this conclusion, a search was made for some substance that would supply this abrasive quality. The fine sand in chewing tobacco was the first thing noticed that wore down the teeth.

About this time there came into the writer's office a young electrician whose mouth showed spongy, inflamed, bleeding gums with evidence of bone loss in the supporting structure. He made the statement that he was getting married shortly, and he would like to retain his

teeth for a few years, then he was going to have them removed. It was suggested that he start chewing tobacco and the reason for doing so was explained to him. He decided to do this. He has presented himself for yearly examinations ever since. His teeth now show the cusps worn off, fairly flat occlusal surfaces, and there is no further loss of supporting bone. The gums are firm and healthy with no pocket formation and much secondary dentine has been built in the pulp chambers.

As the fine sand in the tobacco is too abrasive and would result in the excessive wearing away of the teeth, he was requested to use very little tobacco some time ago. It was felt that he should chew tobacco a little to keep the teeth occluding without high spots, because he has lost some teeth and the drifting and tipping of the remaining teeth might cause high spots in his occlusion. A similar success was obtained with a number of cases, limited by the refusal of many to chew tobacco. This showed the need for a more agreeable material to obtain the same results. Such a material has recently been developed.

In collaboration with Dr. Harold K. Box, Professor of Periodontia, Dr. F. M. Lott, Professor of Prosthetics, and Dr. I. H. Ante, Associate Professor of Crown and Bridge of the University of Toronto, a product has been designed to act as a prophylactic adjunct, which when chewed will supply the abrasive action lacking in the modern diet.

Procedure

(A) *Periodontia*: When using such a material the dentist should bear in mind the two things he wishes to accomplish; first, to change from individual loading to collective loading; second, by the wearing down of the cusps to gradually change from oblique loading to axial loading.

In correcting the first, it must be realized that many of the patients are ten to thirty years behind with their wear, therefore, the dentist should remove with a stone most obvious places of malocclusion. It is very desirable, especially with cases of bone loss, to establish collective loading as soon as possible as, with loss of bone, there is an increase in leverage which means an increase in overloading of the tissue at the alveolar crest with more rapid bone loss. When relieving the occlusion it should be done in such a way that the angle of the cusps is changed to make the teeth flatter. It is suggested that the grinding should be done on the upper lingual and lower buccal cusps, as this is the natural way for teeth to be worn.

It must be remembered that a certain amount of grinding can be done quickly but after that the wearing down must be governed by the rate to which the pulp can accommodate itself by building in secondary dentine. This varies with different patients but a general rule is that one-third to one-half of the enamel may be removed without pulp involvement. On no account must the rate of wear be so fast as to cause the teeth to be sensitive to thermal change.

When starting to correct an average occlusion, have the patient slide his teeth together noticing on each side which cusps interfere most with the slide. Remedy this interference with a stone, remembering to do so in such a manner as to reduce the angle of the cusps. Do one side, then the other and after that the protrusive bite. Make it possible for the patient to slide his teeth together in the three motions without too much interference. In a certain type of case the cuspids are often the most offending teeth in this regard. A locked bite or some cusp or cusps interfering too greatly would slow things up considerably. Once a sliding articulation is established benefits from wear will come quickly. Then have the patient chew the material about fifteen minutes a

day. It will be found that some patients can chew the material much longer than others without unpleasant effects. These patients will attain their results more quickly. Explain about the high spots in the occlusion and suggest, when chewing, to rub the teeth together especially on those places. It will be found that many occlusions can be corrected by the use of the material alone, but a small amount of work by the dentist will get results more quickly.

The patient should be told not to chew the material so long that the teeth become uncomfortably rough. Also, if the teeth become even slightly sensitive to thermal change, treatment should be discontinued until the pulp has had time to adjust itself. However, very little trouble will be experienced this way.

In treating a case where certain teeth have considerable mobility, it is suggested that those teeth be ground slightly out of occlusion. Mobility is due to hyperemia and swelling in the periodontal membrane, and loss of bone. By grinding the teeth slightly out of occlusion the trauma will be relieved and it will give them rest. They should then tighten up and will gradually be brought back into occlusion as the remaining teeth wear. If mobility is due to too great a loss of bone, extraction is indicated. Splinting can sometimes be used to advantage.

One of the most useful places for this method is in the preventative field. In those cases that are just beginning to break down, showing all the earlier symptoms of periodontal disease, such as gingivitis rosalae, puffy, swollen, bleeding gums, etc., but without much loss of bone and deep pocket formation, all that is required is to correct the occlusion by this method, scaling and stimulation, to get a splendid result. From then on the occasional chewing of the material would make provision for normal wear. In that way, the cusps would gradually be worn flat to establish axial loading. Also, the high spots on the occlusion, due to drifting and tipping, would be taken care of.

(B) Prosthetics

Another extremely useful place for such a material is in bridge work and partial dentures. It has long been recognized that much of the partial failure of this work has been the difficulty of harmonizing the occlusion of our restorations with that of the remaining teeth. By the use of the material the patient himself removes any interference as it is designed to wear gold or amalgam as well as enamel. In this way the occlusion of the restoration can be made to harmonize prefectly with that of the natural teeth.

Another use is in full denture work. After the dentures have been inserted in the mouth, establish a sliding articulation by the grinding of the most interfering cusps as in the treatment of periodontia. Then have the patient chew the material until a perfectly balanced occlusion is developed by rubbing the teeth together especially on the places of greatest interference. When full dentures are inserted there is established a new occlusion to which the temporomandibular joint has to accommodate itself. By the grinding in of the occlusion of dentures in the mouth the new occlusion is made to harmonize with the temporo-mandibular articulation. By use over a longer period normal changes in the joint can proceed in harmony with the occlusion.

The intelligent use of such a material will enable the dentist to make much finer adjustments in any place where occlusion is a factor.

Conclusions

1. A normal mature adult tooth does not present the cusps in their original form but shows certain modifications which are normal for any given period in

the life cycle of the tooth. At present the writer is of the opinion that the desired stage of wear for an adult, forty to fifty years of age, should be as described in stage 5 of Stein's classification of wear. Box has recently presented this classification.[3]

2. Much of the traumatogenic occlusion is caused by lack of wear, which in turn is caused by the removal from the modern diet of most abrasive elements. The obvious remedy would be the chewing of a material containing the missing abrasive elements which would give the teeth the wear needed.

3. In 1938 the writer stated[5] that a normal occlusion, that is, one in which the functional stress is sustained evenly over the whole surface of the supporting bone and membrane, gives the necessary stimuli for the development of strong periodontal tissues. Box has recently given the complete histologic picture.[4]

4. Traumatogenic occlusion adversely affects the health of periodontal tissues in two ways; first, by traumatizing the periodontal tissues, and second, by failing to provide the natural stimuli for their normal development.

5. Hygiene may be defined as the promotion of the principles of health. The establishment of heavy function and elimination of traumatogenic occlusion is fundamentally dental hygiene. Therefore, provision for normal wear is sound dental hygiene as it is essential for the proper development of a healthy mouth.

6. From a limited number of observations the writer would like to advance the supposition that with the changes in the occlusion by wear there is a corresponding change in the temporo-mandibular joint; that is, with any change in the occlusion there must be a corresponding change in the temporo-mandibular articulation. Also that the dominant factor in this harmonizing arrangement is the occlusion. This is of special interest to the prosthetist.

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Our ancestors had none of the gadgets, time- and labour-saving devices with which our existence is lined. They lived in what would have seemed to modern men and women sickening discomfort, dirt, peril of disease, darkness and ignorance.

Yet they were happy and not nervous. If they had no gadgets, they had no psychoses either. If they never pressed buttons, neither did they talk about the pressure and strain of life. Their material surroundings were hard, but their mental and spiritual apparatus was balanced and steady.

The modern age, in its pursuit and attainment of material comfort, seems to have forgotten the mind at ease. It sits in deeply soothing armchairs, but its spirit is still restless. . . . .

The human race must learn—it is slowly learned—to make use of the enrichment and comfort which it has been given, not to make life easier and more slothful, but to make it fuller and happier.—Evening News (London).

Habitual Abrasion of the Central Incisors

by D. R. FU, D.D.S., Chengtu, China

ABRASION is a common dental condition which usually occurs in later years of life and is generally uniform throughout the mouth. Normally it occurs on the labial and buccal inclined frictional surfaces of the mandibular teeth and the lingual inclined surfaces of the maxillary teeth. The amount of abrasion would seem to be directly proportional to the structural resistance of the teeth, the character and coarseness of the diet, and the intensity of comminu-

Figure 1

tion. It is also well known that certain habits of occupation or pleasure may unduly accelerate the wearing away of the frictional surfaces. Habits such as chewing tobacco, gum, betel nut, nervous irritations, holding of pipes or nails in the teeth have been recorded in the text books.

A form of habitual abrasion is found in China that does not seem to be recorded in the dental literature. It is caused by the continual cracking of seeds and the result can be seen in the illustrations. These show a typical condition and it is seen in all degrees of severity from a slight break in the incisal edge to a very pronounced V shape notching. It is a habit of leisure and is therefore only found in people of means who can afford to spend many hours drinking tea, gambling or any other non-intensive occupation.

The seeds are ordinary squash or melon seeds which have been well dried and partially roasted. The squash seeds are white and much softer than the black melon seeds. The seed is held in the fingers and placed edgewise against the upper central. By careful closing the husk is cracked open; it is then turned to a horizontal plane and the two sides of the husk reflected on the labial part of the anteriors and the seed is removed by the tongue or carried out by the incisor teeth. Although the process might

Figure 2

sound slow and laborious, seed eaters become very skilful and rapid and in a short time produce a large pile of husks. The actual food value is very little and there seem to be no untoward results from continually eating the seeds.

When the habit is formed the same location is always used, resulting in the abrasion of the enamel on the incisal surface. (Fig. 1, Fig. 2.) It is apparently and actually deeper on the upper teeth which may be due to the histological structure but is more likely due to the lateral movement of the mandible allowing other areas to come into contact with the seed. When the notching becomes evident many people discontinue the habit but others are unable to control their actions in this regard. The ignorant believe the notching is due to the eating of the seeds and therefore refuse to eat the seeds; nor will they allow their children to eat them. This superstition has given rise to the custom of politeness of cracking the husk for guests but allowing the guest to extract and eat the seed.

Some people who are cognizant of the condition learn to use the posterior teeth or attempt to vary the location used but neither of these methods are as efficient as the use of the anteriors. As the enamel is worn away the darker colour of the dentine appears and may become stained, adding to the disfigurement. To date no cases have been observed of exposure of the pulp nor does the dentine become hypersensitive. This suggests an adequate formation of secondary dentine.

If the condition is not very pronounced it can usually be controlled by judicious grinding of the incisal edge, at the same time giving an adequate explanation of the habit. With more severe cases where restorations are indicated the treatment is more difficult. The patients' only concern is an aesthetic one which is the major problem confronting the operator. There is never sufficient support to be able to use a synthetic filling and the use of gold, either foil or inlay, necessitates showing an amount of metal that is disfiguring on the labial surface. A facing of synthetic is not feasible unless the condition is very severe. A most frequent difficulty is the preparation of a ¾ crown. After the incisal cut has been made the notching has been reduced so that it must be replaced and yet it cannot be completely removed or the incisal will show too much gold.

The condition shows in a striking manner the loss of enamel in a definite location from the repeated abrading of an object that in itself is not particularly hard.

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The Significance of Diagnosis in Dental Practice *

by L. R. MAIN, D.D.S., F.A.C.D., St. Louis, Mo.

THE title indicates the importance of the subject, for it is paramount in every department and branch of medical science. I have nothing particularly new to offer and the reiteration of oft-used phrases tends to make them lose their value; still, as the importance of a subject so fundamental to progress must be understood, I am hoping that further effort and time spent in this direction will be of value.

Dental education has received a new emphasis since my days in dental school some thirty years ago, for then the basis for service was from the aesthetic, the functional and general utility point of view, and of necessity the technical and mechanical phases of our work were emphasized. These above mentioned points are still fundamental in dental practice and every effort to refine our technique in all the different phases of restorative dentistry is still in order. There has been however a further responsibility imposed upon the profession and for the past twenty-five years it has been enlarged to include a phase of preventive medicine based on the evidence that diseased teeth may become disturbing factors in the general health. Dentistry has become a health service and as such must now undergird every effort when restoring the lost dental structures. This increased knowledge means that dental diagnosis is of greater importance today than it was twenty-five years ago and this added responsibility has immeasurably increased the value of dentistry.

This new emphasis is most commendable and yet the profession has been rather slow in accepting it, as well as other truths as they have appeared upon the horizon from time to time. We are told by dental historians that John Hunter, the famous English anatomist who died in 1793, was one of the earliest contributors to dental literature and claimed, and I quote—"Diseases in the teeth are apt to produce diseases in the neighbouring parts, frequently of very serious consequences." When I commenced practice the professions had no appreciation of the value of this early statement made by John Hunter more than one hundred years before. This old truth had to be rediscovered and presented several times before it became a determining factor in every day practice. About 1910 another Hunter of England called the attention of the medical world to the septic condition which developed under what he called "American dentistry". Of course this statement met with much opposition but as there was at least some truth in the statement it quickened the interest of the medical as well as the dental professions, and diagnosis began to be developed as a fundamental basis upon which the dentistry of the future was to be built. Health is paramount and it is the foundation upon which dentistry as a health service must be built.

The public is fast becoming informed of oral conditions as a result of the radio, the printed page, the examination of many thousands of school children in many communities and through an awakened profession which realizes that more time spent on diagnosis is necessary, if

* Presented to the Academy of Dentistry, Toronto, December, 1939.

we are to meet the demands being made by a better informed public.

Roentgen Ray

It has been said that the Roentgen ray has made a greater contribution to dental progress in this generation, than any other single factor, and I believe it is true. It is well to consider its value and ascertain, if possible, if this important adjunct is occupying its rightful place in both the teaching and practising of our branch of the healing art. The invisible zone between the fields of medicine and dentistry is gradually narrowing, due, very largely to our broader concept of responsibility, and a better appreciation of good dental service by the medical man. In no sense is this an effort to usurp any of the prerogatives which belong to the physician, but rather it is the result of expanding our own field of diagnosis to the righful position it must occupy. The chief connecting link between the two fields is rational radiographic service. However radiographic information, as important as it is, is frequently not sufficient information to enable us to make a complete and satisfactory diagnosis. The word DIAGNOSIS literally means "to know through", so other avenues of information must not be overlooked in order to have the whole picture before us when important decisions are to be made. Such further information as can be secured by the use of the vitality test, the clinical picture, the history of the case and sometimes through transillumination and occasionally it is advisable to secure the services of the pathologist. If our diagnosis is incomplete, our prognosis is unreliable and therefore it is impossible to obtain the best results in therapeutics.

Preventive Dentistry

Preventive dentistry is an oft-used phrase and one over which every practitioner should ponder. In the field of research that phrase has to do chiefly with aetiology,—what causes decay? What are the factors which influence periodontal destruction, etc.? In every day practice it has another meaning. Preventive dentistry, in the average office, means early recognition of caries and of marginal involvement of the supporting dental structures. To recognize these disturbances in their incipiency is a real service to our patients from the standpoint of retaining vital pulps in teeth and from the standpoint of recognizing the probable cause of marginal destruction of bone before too much tissue is lost. Such service is truly preventive dentistry and is also a phase of preventive medicine as it minimizes the likelihood of periapical infection and the possible sequela.

Another important consideration in dental service which enables us better to make a prognosis is to be sure that work rendered will have no untoward result or react in such a manner as to reflect discredit upon our effort. A radiographic check-up of all canal fillings, of interproximal spaces when large restorations are made; of sockets, when any doubt exists as to every fragment of tooth or bone being removed, of instances where root resections are performed, etc., would dispel much of the fear of success of the operation and give the patient an assurance that thorough and complete service was attempted at all times.

I believe that radiology is absolutely fundamental in dental practice and that the student in college must be instructed so that in practice he will endeavour to thoroughly diagnose every case before treatment is instituted. If this were carried out as the ideal in practice, it would necessitate radiography in most of the cases. Too frequently we use the x-ray as a means of getting us out of trouble instead of an aid in keeping us out of

trouble. We do not aim to be unduly critical but we do aim to emphasize the need of intelligence in that phase of our work which has been chiefly responsible for changing the whole complexion of dental practice. The laws of nature seem to make no provision for the indifferent and careless dentist and in no department of the healing art can a man be "checked-up", in his efforts as can a dentist. If our work is incomplete, nature does practically nothing to ameliorate the discrepancy.

It may be that discrepancies in radiographic shadows have lead us to disappointing results, and how well I realize this possibility. But by constant study and experimenting we believe that most of these discrepancies can be overcome and we will not be mislead in our interpretation. Radiology is not as easy as we might have been led to believe, as is evidenced by much of the work seen. But, as it is the most valuable aid at our disposal up to this time, we must depend upon it, to assist us in our endeavour to properly diagnose and treat cases. The x-ray machines have been so perfected that wonderful results may be secured. Further physical equipment is not now our immediate need, but the need is for better mental equipment to enable us to meet our problems in such a manner that we will be able to practise healthful dentistry. If our aim is to give the public the most effective dental service, then we must rely on dependable radiographic information as the chief foundation upon which such services are to be built.

Radiographic information has stimulated research, given an impetus to the value of better restorations and indicated the need of asepsis in canal therapy. It has revealed the need of developing surgeons within our own ranks who have the dental view point and whose skill and dexterity can cope with the ever revealing information produced in the radiogram. It has been a great factor in giving to dentistry the biological outlook and it has enhanced its mechanical skill. The subject of dental diagnosis is broad and far-reaching, as it extends beyond the confines of the oral cavity. It must always be borne in mind that the teeth and the surrounding structures are part of the whole physical economy and no one part can suffer or be diseased without at least some disturbance in other parts. Because of this fact the problem of diagnosis is a responsibility and must receive considerable attention.

Conventions

CANADIAN DENTAL ASSOCIATION AND ONTARIO DENTAL ASSOCIATION, ROYAL YORK HOTEL, TORONTO, ONTARIO, MAY 27-29, 1940.
(Dentists from the United States and from all parts of Canada will be welcome.)

NEW BRUNSWICK DENTAL SOCIETY, ADMIRAL BEATTY HOTEL, SAINT JOHN, JULY 8-9, 1940.

AMERICAN ACADEMY OF PERIODONTOLOGY, CLEVELAND, OHIO SEPTEMBER 5-7, 1940.

AMERICAN DENTAL ASSOCIATION, CLEVELAND, OHIO, SEPTEMBER 9-13, 1940.

AMERICAN DENTAL ASSISTANTS ASSOCIATION, CLEVELAND, OHIO, SEPTEMBER 9-12. HEADQUARTERS CLEVELAND HOTEL.
(Lucile S. Hodge, Gen. Sec., 401 Medical Arts Building, Knoxville, Tenn.)

EASTERN ONTARIO DENTAL ASSOCIATION, CHATEAU LAURIER, OCTOBER 14-15, 1940.

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM NOVA SCOTIA:

My brother complains about the trouble he is having with his dentures, particularly the upper. There seems to be such an excess flow of acid saliva that it fills his mouth and makes him sick. He has had dentures made of three different materials and they all act the same. Variations in diets also fail to improve the condition.—*Dr. X.*

Editor's Note: This problem was submitted to a dentist in Nova Scotia by his brother, a layman of Toronto, Ontario.

REPLY FROM ONTARIO:

Because of the lack of information given in this case we can answer the question only in a general way by referring to some of the causes of ptyalism. They may be discussed under two headings, namely, local and general.

The local conditions to be considered include firstly, the possibility that the increase in function, both masticatory and physiological, resulting from the insertion of dentures, brings about an increase in salivary secretion. This process would be considered to be normal. Secondly, there is also the possibility that the posterior border of the upper denture may be extended too far back upon the soft tissues of the soft palate, thereby producing a tendency toward nausea, which is invariably accompanied by an increase in the secretion of saliva.

Under the heading of general causes for ptyalism may be included the use of certain drugs, principally mercury, iodides and pilocarpine; the use of tobacco, alcohol and bitter tonics; and in certain systemic conditions, or general emotional states, e.g., worry, etc.

As for treatment, we would do well to consider the statement made by one authority, namely that "Persistent salivation is not a disease, it is a concomitant symptom of an existing ailment. Hence the treatment should be primarily directed against the causative lesion."—*R. G. Ellis. Toronto.*

REPLY FROM MANITOBA:

With the limited information presented and the paucity of available references in our literature to the significance of variations in the oral secretions and excretions, consideration of this case must necessarily be limited to generalities. It would appear, however, that the parotid or some excretion from it is involved.

In reference to the glands, would suggest leaving out the upper denture for some days to note any effect. Palpate and x-ray, to determine any tissue change in either gland. Quite conceivably we may find the buccinator and the disto-buccal periphery of the denture involved in a compression or general irritation of the gland on one or both sides.

We should, at the outset, realize that the salivary as well as the mucous glands of the mouth are, under force of circumstances, frequently called upon to assume the role of excretory channels for various unwanted materials. I need refer only

to such drugs as pot. iodide, and to food residue of the carbohydrate group as examples, this latter being such a fruitful source of tooth decay.

Space will not permit a full discussion of salivary analyses, but this may yield a clue, as a carbohydrate residue in the excretion from the parotid will give rise to various symptoms.

Finally note the tobacco habits and the salt and water intake of the patient. Check for thyroid disturbances and a tendency to achlorhydria, as well as a hyperacidity since all these play their part in changes in salivary fluid.—*H. J. Merkeley, Winnipeg.*

REPLY FROM SASKATCHEWAN:

There are many phases not disclosed in the above problem as it is stated—many phases that would help — age, health, how long the teeth have been out, whether dentures have been worn before (even partials), what business he is in, is he idle, how much time elapses before he becomes nauseated after inserting dentures.

How do they know the saliva is acid; has it been tested?

Treatment suggested: 1/120 grain (hypodermic tablet) of atropine sulphate with sufficient water to swallow—three times a day. Then, too, a refrigerant, like peppermint water, used as a gargle and mouth wash is often fine. Similar results would be obtained by holding a hard peppermint candy in the mouth.

Abundance of saliva is a good omen and disappears when dentures are worn long enough to tire the salivary glands of their excitement.—*W. Fraser Smith, Regina.*

REPLY FROM ALBERTA:

Dentures that are stable under all conditions do not markedly stimulate the flow of saliva. On the other hand any moving object in the mouth tends to increase the activity of the salivary glands. So it would seem from the available information in this case that the solution lies in the stabilization of the dentures.

The presence of dentures in the mouth does not affect the acidity or alkalinity of the saliva except in so far as it influences the nervous reaction of the patient to unsatisfactory restorations. This particular phase is a medical rather than a dental problem.—*H. A. Gilchrist, Edmonton.*

It is not hard to be tolerant, if you do not care one way or the other, if you are hazy about right and wrong. Some men are praised for their breadth of view and their wide tolerance of differing opinions, who should be blamed for having no opinions to speak of.

Some tolerance is even worse, a cynical acceptance of what is. "All cats are grey in the dark." *If a man lives in a moral twilight, there are no clean-cut lines, and all colours shade into dull grey. It is sometimes the superior attitude of the mere spectator, who looks at the human scene as if he could have no part in it. He looks at it as from a height, and smiles at the antics of men.* "Lord, what fools these mortals be!" *He neither loves nor hates. He has no real principles, no standards of judgment, no concern one way or the other. That is not tolerance, but besotted indifference.—The Rev. Hugh Black in "Christ or Caesar."*

The Forum

• DIET AS PERTAINING TO DENTISTRY

by DOROTHEA F. RADUSCH, D.D.S., B.A., M.S.

(Condensed from paper read before the Thirty-third session of the West Virginia State Dental Society.)

TO get a representative diet the patient should keep a careful record of all food eaten for a week. The *kind* of vegetable, meat, fruit, and the *amount* of bread, cream, sugar and butter should be stated. Servings of other foods will be considered of average size unless otherwise stated. These should be kept on a blank sheet of paper to eliminate the suggestion of foods. The diet can then be corrected.

Adjustments may be made for children according to their ages. From one to four years, three cups of milk; four to six servings of fruit and vegetables; one serving of meat; one egg; whole grain equal to one-half cup of breakfast cereal and one serving cereal equal to 75 calories; one tablespoon of butter; and at least one teaspoonful standard cod liver oil; with servings smaller than the adult. After five increase the servings and include four cups of milk. Through adolescence keep the general plan but *double the amount of food given a sedentary male for the boy*s with not so much for girls. It has generally been the habit to over-feed children under five and under-feed over five. Sugar and refined cereal should be kept at a minimum, since children, especially under five, need mostly protein, minerals and vitamins.

The *protein* specified is supplied by meat, milk, cheese, egg, cereal, and high caloric vegetables. Because of its proportion and variety of essential amino acids, animal protein is necessary and the necessary amount for an adult will be found in one serving of meat, two of milk and one egg daily.

The *calcium* content can hardly be met by other than a pint of milk or its equivalent in cheese daily. Butter contains no calcium and cream contains very little. Twenty servings of fruit and vegetables a day would be necessary to fulfil the calcium standards, and twenty-four tablespoons of cream for the calcium content of one cup of milk. In fruit and vegetables the calcium equivalent of one cup of milk would be:

6 medium sized oranges, equivalent in calcium to 1 cup of milk;
1 cup of green peas, equivalent in calcium to 1/8 cup of milk;
3/4 medium sized potatoes, equivalent in calcium to 1/4 cup of milk;
6 medium sized apples, equivalent in calcium to 1/8 cup of milk;
3/4 head of lettuce, equivalent in calcium to 1/4 cup of milk;
1 cup of diced carrots, equivalent in calcium to 1/4 cup of milk.

This substitution is bulky and very expensive. The vegetables would cost from 50 to 75 cents, in contrast to the pint of milk, costing from 5 1/2 to 7 cents. Milk is the most inexpensive way of providing calcium, besides supplying other dietary factors. Fruit and vegetables, on the contrary, are important for diet, but not as calcium sources. Also, it is possible that such intakes of fibrous foods would disturb digestion and absorption of minerals and vitamins.

Phosphorus is supplied mainly by protein foods. Since meat is so expensive other protein sources must be added.

Iron, such a pertinent problem for women, is supplied by meat, eggs, fruit, and vegetables. It was found that addition of iron salts raised the hemoglobin level of women, while it scarcely altered

the hemoglobin in men. It is possible, therefore, that the hemoglobin "normal" should be the same for both sexes, and that the intake for women should be increased.

Milk, egg yolk, butter, cream, yellow and green fruits and vegetables supply *Vitamin A*. The average amount of butter on a slice of bread, and the average serving of coffee cream supply the same amount.

Vitamin B-complex includes vitamin B_1 (thiamin or vitamin B) and vitamin G which is subdivided into riboflavin, nicotinic acid, and the filtrate factors which have not yet been found important to human nutrition. A lack of vitamin B_1 causes loss of appetite, limitation of growth, polyneuritis, and beri-beri. An ample supply of vitamin B_1 is supplied if half the food calories are derived from milk, eggs, fruit, vegetables, and if half the cereal intake is whole-grain or undenatured. A study of the average adult's diet shows avitaminosis B.

The role of riboflavin in human nature is not clear. Vitamin G assays of food usually measure the riboflavin content and not the antipellagric value. Nicotinic acid seems to prevent pellagra, which occurs in people on medically restricted diets or more frequently among food faddists, alcoholics, or the very poor.

Thirty Sherman Units of *Vitamin C* are necessary for prevention of clinical symptoms of scurvy, the amount in ½ medium size orange, ¼ grapefruit, two medium sized potatoes. A study of periodontia patients shows that the average adult has enough vitamin C for scurvy prevention but does not consider that about 60 Sherman units are necessary for the arrest of gum disease.

American diet once included potatoes two or three times a day and since ½ cup provided about 15 units of vitamin C, this food was largely responsible for scurvy prevention. Now other sources must be used. Lists of foods high in various dietary factors seldom take into consideration the size of servings since they are based on 100 grms. and therefore erroneous ideas arise. For example, it would take a bunch of parsley five inches in diameter to supply 100 grams with 3.16 mg. of iron and 150 units of vitamin C; 1½ cups of chopped raw cabbage, and 3 cups of chopped watercress for 100 grms.

Cereal foods include bread, rice, macaroni, cake, pie crust, and crackers, as well as breakfast cereals. White or refined cereals and sugar supply calories mainly. If half the cereals are in whole grain or dark forms, there will be plenty of minerals, and vitamins, particularly vitamin B and iron.

Sugar includes honey, jelly, jam, syrup, and is computed as one serving per teaspoonful, two for plain cake, two for frostings, two for ice cream, etc. The proportionate amount rather than the actual intake is important. The main value of the cereal and sugar intake is to indicate the source of calories.

If the average intake of foods as found by the week's record equals the standard, the intake was probably satisfactory at the time the record was kept. When dental disease is still present, differences in metabolism, Vitamin D activity, and the length of time the patient has been on the present diet must be considered. If there has been a previous lack, certain structural changes may have taken place which cannot be expected to be corrected entirely by mere replacement of the factors.

If the intake is not up to standard, a corrective dose, generally more than a protective or maintenance dose, is to be recommended, particularly of calcium, phosphorus and vitamins.

When the patient can drink sufficient milk, it is the best supply of nutritive elements. Half pint bottles should be

used since the ordinary glass holds only two-thirds of a cup.

A compound such as dicalcium phosphate should be used to facilitate storage of minerals when the patient cannot drink milk, and when more than a pint is desirable. When high calcium retention on a soluble salt is desirable a large supply of phosphate is needed. Survey shows that both calcium and phosphorus are usually deficient.

About one teaspoonful of dicalcium phosphate or five 7½ grain dicalcium phosphate compound capsules is the equivalent of one pint of milk. Some compounds contain viosterol and may be used as supplements of vitamin D when no other source is used. Since sweetened tablets nauseate many patients, it is best to use the unsweetened form over long periods of time.

Vitamin D is necessary for proper utilization of calcium, phosphorus and probably milk, when sunshine is available only for short periods of the year. This is also true in the case of elderly persons who get little sunlight, and persons who have low retention of minerals. It is recommended for:

A. All patients who are deprived of sunlight.
B. Those whose diet is lacking in milk or is generally poor.
C. The aged, particularly when limited in diet or confined indoors.
D. Persons suffering from fractures.
E. All pregnant women—800 U. daily at least.
F. All children—300-400 daily at least.

The limit of tolerance of adults for vitamin D is possibly 150,000 units in concentrated forms.

Although use of vitamin D for infants is universal it usually is insufficient during childhood, being due to an erroneous supposition that it is not necessary.

Ingestion of vitamin D probably does not decrease the requirement for calcium. Use of flavoured milk drinks may help patients who object to the flavour of milk, and possibly in its digestion.

Those who object because they think milk will make them gain may be told that the calories are comparable to: one slice of bread and butter, one-half milk chocolate bar, a very small piece of unfrosted cake, scant one-half cup vanilla ice cream or one-half piece of apple pie. Omission of any one will admit a cup of milk. While omission of a piece of frosted cake will admit one pint of milk. Two and one-third cups of skim milk or two and three-fourths cups of buttermilk will provide the same calcium with one-half the calories.

A cube of American cream cheese 1 x 1½ x 1 inch will furnish calcium equivalent to one cup of milk with two-thirds of the calories. In cottage cheese the calcium passes into the whey and is not present in the curd used. It takes at least 1½ cups of cottage cheese for one cup of milk. Cottage cheese is however, an excellent source of protein, ½ cup equal to 3 cups of milk.

Milk is important, but the importance of other foodstuffs should not be overlooked in estimating the adequacy of diet. If the diet is varied and liberal in natural foods there is little danger of omitting factors required in minute amounts.

Foods recommended should be easily procurable, reasonable in price, and rich in essential minerals and vitamins.

• CANNED FOODS IN RELATION TO HEALTH

SIR WILLIAM SAVAGE, who in 1923 delivered the Milroy lectures before the Royal College of Physicians on the subject of canned foods in relation to health brings our knowledge of the subject up to date in an article in the *Lancet* (Nov. 4). He writes: "On the nutritive side, canned foods compare favourably

with fresh foods, when allowance is made for the fact that the former are already prepared for use and the latter are subjected to any losses which may take place in domestic preparation and cooking. These facts apply qualitatively as well as quantitatively. So much attention in modern canning practice is paid to the preservation of the vitamins that, as regards vitamin-content, they are not, in general, inferior to the same foods after ordinary cooking. In some cases they are definitely superior. The view that canned foods are devitalized foods (whatever that may mean), is not supported by nutritional research."—*Dental Record, December, 1939.*

• THE THERAPEUTICS OF LAUGHTER

MIRTH is to the human body as sunshine is to vegetation, Dr. S. A. Shoemaker claims in his article entitled "Laughter" in the April issue of *Hygeia.*

If we would have life abundant and flowing over, we need a copious supply of oxygen, the author declares, and this can be secured most easily through laughter. At the same time, this deeper oxygenization of the blood is secured without the irksomeness of conscious effort that accompanies exercise taken up for its own sake. Thus through laughter one can vitalize one's blood while reclining on an overstuffed couch when not able to engage in active sports in the gymnasium.

Laughter is a source of therapy for the neurotic, irregular heart. Patients with this affliction are afraid to laugh lest their heart will stop altogether; whereas experiments have proved that a hearty laugh repeated at proper intervals has relieved this trouble. The heart is deeply under the influence of the emotions, and the free outburst of laughter combined with its mechanical action produces a salutary effect on that organ.

Laughter is a good exercise for the digestive organs. They are definitely moved to increased activity by the shaking and massage they get from the abdominal muscles during laughter.

The ideas and situations that make us laugh are classified as wit and humour. Wit may be kindly, or neutral, or it may carry a sting of sarcasm. It is the shock of pleasant surprise from meeting an unexpected difference between things that are alike; or it occurs as the result of utterly incongruous things combined in the expression of one idea. In contradistinction to wit, humour deals with incidents, characters, and situations. True humour is always kindly and gracious; while it points out and pictures the weaknesses of humanity, it feels no contempt and leaves no sting. It has its root in sympathy and blossoms out in toleration.

Laughter is a healer not only of the body but of the mind. It is the language of peace, sympathy, and good will. It is the fragrance of life that yields health and friends, and increases your bank account. Laughter was always an art. Recently it has become a science.—From *The Diplomate,* 1938, 10: 126, *per the Can. Med. Assoc. Journal.*

• THE ADMINISTRATION OF NITROUS OXIDE AND OXYGEN

by S. M. FRANK, D.D.S., New York, N.Y.

CONCLUSIONS OF PAPER

1. Nitrous oxide and oxygen is the safest general anaesthesia under all conditions.

2. Doubtful cases which require general anaesthesia should be hospitalized.

3. Precautionary measures should be used wherever indicated.

4. Technique should be modified according to conditions present.

5. The anaesthetist should take no part in the operation.—*Am. J. of Ortho. and Oral Surg., Sept., 1939.*

PRINCE EDWARD ISLAND

Editor—M. H. GARVIN, Winnipeg

SASKATCHEWAN

A S S O C I A T E E D I T O R S

D. T. Waye, Charlottetown

QUEBEC

ONTARIO

F. C. Harwood, Moose Jaw

NOVA SCOTIA

ALBERTA

E. M. Laurin, Montreal

T. R. Marshall, Toronto

S. G. Ritchie, Halifax

John Clay, Calgary

MANITOBA

NEW BRUNSWICK

BRITISH COLUMBIA

J. F. Morrison, Winnipeg

Harry H. Peters, Saint John

J. S. Bricker, Vancouver

Some of Our Aims

The eminent journalist, Walter Lippmann, states that, "We are finding that when a nation refuses to do the great things which it has to do, it is unable to do the little things that it wishes to do." How truly, also does this statement apply to the average dental practitioner in Canada! Our problems in practice are many: our fees are low: our collections are difficult: in many cases our standards of practice have been lowered: competition is keen. We would that, in some way, these conditions might be improved. Something is wrong. Something is wanting and that something is a lack of clear purpose, of lofty ideals, of definite vision, of a determination to fight vigorously for those constituents of greatness which have raised dentistry to the rank of a noble profession within the compass of a comparatively few years.

Neither are these local problems the only ones which confront us today. Harry Strusser, Chief of the Dental Division, Department of Health, New York, states: "Having studied relationships and changes that have taken place in the last few years, with a background of 20 years in public health, and 25 years in social welfare work, I am fully convinced, after giving sincere and conscientious consideration to both the public interest and to the interest of the practitioners in dentistry, that impending social changes must be met and guided by organized dentistry." Dr. Strusser is only one of many leaders

who believe that organized dentistry is facing a very critical period in its history; and yet there are still so many of us who say, "No matter what happens it can't affect me"—but it can and will affect all of us.

Organized dentistry is faced with the problem of extending dental health educational programs; of seeing that the standards of dentistry are upheld; of seeing that those practitioners who are drawn into public service are properly remunerated and have opportunity for advancement and study, as well as recreation; of seeing that an extensive research program is commenced and carried on; of emphasizing all phases of dentistry for children; of finding a method to serve the low income groups who can pay at least something towards dental health.

Organized dentistry has some duty also towards the average dentist in general practice. The public is being educated to the importance of a healthy mouth. The following is an excerpt from a letter sent to the editor of the Journal from a layman in an Ontario town: "Where can a layman obtain information on the latest developments in preventive dentistry? Most dentists seem uninformed. It is perhaps natural that they should be more interested in filling cavities than in preventing them. The general public is aware that great strides have been made within the last few years in dietary knowledge which, if applied, will enable people to keep their own teeth longer. Why is this information not more readily obtainable? No such information has been passed on by a dentist to anyone I know. How can I improve my knowledge of dental care? Who knows about these things?" Other illustrations might be given but this will suffice to show that we have many problems right in our own offices, difficulties which could be overcome if organized dentistry was functioning efficiently.

For any organization to carry on properly in these days adequate financial support is essential. Might we Canadian dentists not take a lesson from our American brothers? There are approximately 62,000 practising dentists in the United States and there are 45,768 members in the American Dental Association. Each member pays into the Association an annual fee of $4.00 and at the present time plans are being evolved to raise this to $6.00. Dr. Lon W. Morrey, of Chicago, states that if each member's dues were broken down and allocated to each expense item, it would read something like this: "Each member pays annually $1.39 for The Journal, 44 cents towards the annual meeting, 33 cents towards administrative expense, 18 cents for research, 37 cents for public education and 18 cents towards the work of the Council of Dental Therapeutics and the Bureau of Chemistry. Is it worth 37 cents a year to have organized dentistry educate the public to appreciate dental health? Each A.D.A. member receives the services of twenty-eight committees, bureaus and departments, all of which are actively engaged in furthering personal professional interest. Hundreds of men, both inside and outside the Association, are contributing their time, their thoughts, their scientific and organization efforts for his professional welfare."

Our Canadian Dental Association is a younger organization and has been functioning under terrific handicaps. Still it is making progress; and considering the extremely small financial support which has been given, it has accomplished a great deal for the members of the Canadian dental profession. We cannot all do research work. We cannot all contribute organization ability. We cannot all distinguish ourselves as leaders in directing the practice of dentistry into greener pastures, but if we have any desire to accomplish these cherished ambitions in our daily practice we must not refuse support to the great things in our professional life, and among the greatest is national organized dentistry as represented by the Canadian Dental Association.

"To him that hath shall be given" is true of life in all its ranges, if proper use is made of what is possessed. Markedly is it true of growth in mental power and character. Intellectual mastery in any subject increases the capacity of the mind for mastery in other subjects; growth in character in any one point contains the promise of complete self-mastery in the future.

If we are tempted to despair at the slow progress we make in overcoming faults, let us remember that perseverance cannot be fruitless. The laws of spiritual growth are hidden from us. Silently on the unseen loom of character a pattern is being woven, whose beauty may not reveal itself till long after.—Times Weekly Edition.

Dental Service to the Air Force

The organization of the Royal Canadian Air Force, while essentially the same as the Army, seems difficult for many to understand. The explanation of this seems to be chiefly that the nomenclature of the Air Force is less familiar to the average layman than that of the Army. The administration is carried out through the geographical division of the country into Air Commands. These are comparable to the Army Military Districts, but are much fewer in number.

The dental service to the Air Force is under the same direction and is similar to that of the Navy and Army. It is established and operated by the Canadian Dental Corps under the Director of Dental Service, Colonel Lott. A liaison officer, Major Coons, has been appointed by him as his representative to deal with matters which exclusively affect the Air Force, and he is known as the Staff Officer, Dental Service (air). The dental service in each Air Command is administered by a Command Dental Officer with practically the same organization as a Military District. The authority of the Command Dental Officer parallels that of the District Dental Officer, in almost all respects. They are each accountable to the Director of Dental Service. It will be appreciated that the elasticity of the arrangement just described, makes it possible to standardize administration, equipment, supplies, economy and efficiency.

Officers of the Canadian Dental Corps may be employed in Naval, Army or Air Force clinics. It is not the policy of the Dental Corps that posts in

individual clinics will remain filled indefinitely by the same officers, nor is it felt advisable that a partition of present authority be made in the interests exclusively of any particular branch of the service whether it be Navy, Air Force or Army.

The dentists of Canada are proud of its Dental Corps. The officers of various districts who have been selected with the greatest care, are men of fine character; leaders in the profession in their home provinces; men who have already achieved notable success not only in the profession, but in numerous other activities, and many of them have distinguished military records from the war of 1914-1918. We again congratulate Colonel Lott upon the efficiency of the Corps.

Lieutenant-Colonel George L. Cameron, of Swift Current, Saskatchewan, who at the outbreak of hostilities was made District Dental Officer of M.D. No. 12, with headquarters at Regina, has been appointed recently to the position of Second in Command of the Dental Corps, and so has been transferred to Headquarters at Ottawa. This appointment is looked upon with particular favour by the dentists of Western Canada, who for many years have considered Lt.-Col. Cameron as one of Canada's outstanding leaders in the dental profession.

In order that we may become better acquainted with those thus far selected to direct the dental service to the Air Force we are herewith publishing a biographical sketch of these District Officers together with their photographs.

Major Dwight S. Coons, M.M., D.D.S., of Hamilton, Ont., now Staff Officer Dental Services (Air), National Defence Headquarters, Ottawa, Ontario.

He was graduated from the R.C.D.S., of Ontario in 1923 and located in private practice in Hamilton. He is Past President of the Hamilton Dental Association; Past District Governor of the Kinsman's Clubs of Canada; Past President of the Leander Boat Club of the C.A.A.O.

Major Coons enlisted in 1915 and served in the ranks in France with the 54th Battalion, C.E.F. He received his commission in 1918 and was awarded the Military Medal. He remained in the militia, after graduation, with the Argyle and Sutherland Highlanders of Canada, from which he transferred to the Canadian Dental Corps in November, 1939, and was appointed to his present duty with rank of Major. He is very active in sports, particularly golf, fishing and shooting and is President of the Toronto and District Dental Golf Association for the current season.

He is married and has two daughters and one son.

Captain Elgin McKinnon Wansbrough, M.M., D.D.S., of Shelburne, Ontario, now Command Dental Officer, No. 1 Training Command, R.C.A.F., Toronto, Ontario.

He was born October 29, 1898. He enlisted April 13, 1916, with the 164th Battalion, Canadian Expeditionary Force as a private. He transferred to the Canadian Machine Gun Corps, England, 5th Machine Gun Company, and 2nd C.M.G. Battalion, France.

He was graduated from the Royal College of Dental Surgeons of Ontario in 1923 and commenced practice in Shelburne, Ontario. He served on the Board of Education and Council.

Captain Wansbrough is a Mason, a Rotarian, a curler and a fisherman.

He was a Lieutenant in the Peel and Dufferin Regiment, 1927, Major in the Lorne Scots, P.D. & H. Regiment, 1936, and was transferred to the Canadian Dental Corps, November 15, 1939.

He is married and has two sons and two daughters.

Captain R. H. McDougall, M.M., D.D.S., L. D. S., of Victoria, British Columbia, Command Dental Officer, Western Air Command, with Headquarters in Victoria.

He was matriculated at Moose Jaw Collegiate Institute, and attended Regina Normal School. He was graduated from the Royal College of Dental Surgeons of Ontario in 1923 and practised dentistry in Moose Jaw, Saskatchewan, until 1937, when he moved to Victoria, B.C. He is a past president of the Moose Jaw Dental Society. He re-organized the Saskatchewan Dental Society in 1936, and was General Chairman of the first convention held under the new organization in the same year.

Captain McDougall went overseas with the Queen's University Battalion and served in France with the 20th Battalion B.E.F., was awarded the Military Medal, and was wounded in August 1918. He was Dental Officer in the 10th Field Ambulance from 1929 to 1937.

He is an enthusiastic hunter, fisherman and golfer.

He is married and has one son and one daughter.

Major H. S. Crosby, E. D., D.D.S., of Halifax, Nova Scotia, Command Dental Officer, Eastern Air Command, Halifax, N.S.

He was graduated from Dalhousie Dental College in 1923 and practised dentistry in Halifax until the outbreak of hostilities, serving on the dental staff of Dalhousie University.

He is Past President of the Nova Scotia Dental Association and Past President of the Halifax Dental Association.

He served with the Canadian Field Artillery in France, 1916-1918. He served with the 1st Halifax Coast Brigade, Royal Canadian Artillery, from 1922-1939, taking command of one of the forts at the outbreak of the war and until transferred to the Canadian Dental Corps.

Major Crosby is a Rotarian and is an ardent fisherman.

He is married and has one son and one daughter.

BOOK REVIEW

Oral Pathology, by Russell W. Bunting, D.D.S., D.D.Sc., Professor of Dental Histology and Pathology, Western Reserve University, Cleveland, Ohio; and Thomas J. Hill, D.D.S., Professor of Clinical Oral Pathology and Therapeutics, Western Reserve University. Second edition, thoroughly revised. Octavo, 460 pages, illustrated with 315 engravings and 1 coloured plate. Published 1940 by Lea and Febiger, Washington Square, Philadelphia. Price $6.50.

This is a text for students and practitioners of dentistry and is an important contribution to preventive dentistry. It demonstrates what can be done to control the common oral diseases, such as dental caries, gingivitis, pyorrhea, and the stomatides.

The following splendid summary of the findings on dental caries is found in this book: "As yet, no dietary measures have been demonstrated in which the addition to the daily ration of any specific food element or combination of them will reduce the caries index. The only method thus far successful in lowering the L. acidophilus counts in the mouth is the reduction of sugar or sugar and starch in the diet."

The work includes a contribution on Malocclusion and Deformities by B. E. Lischer, D.M.D., and a chapter on Abnormal Developments by Samuel W. Chase, Ph.D.

The dentist who has a medico-dental viewpoint and is endeavouring to practise his profession as a health service will find the perusal of this book both interesting and helpful.—*M. H. G.*

The way to gain a good reputation is to endeavour to be what you desire to appear.—Socrates.

DENTAL CORPS NEWS

News from the C.D.C. in England

Dr. Edmund T. Guest, newly elected President of the Toronto Academy of Dentistry is in receipt of a very fine letter from Major Trelford. A few excerpts are related here as a matter of interest to many colleagues and friends—

Dear Eddie—

All the officers of the unit are fine and working hard. We have a splendid bunch and the work they are doing has been commented on very favourably many times. General McNaughton, who is a very fine soldier and a gentleman, has expressed more than once to myself and others that he is pleased with the way we are carrying along and of the value of the corps.

We have fine quarters, none finer and an exceptionally fine place for our laboratory. The lab., of course, is in charge of Major Ira W. Hamilton and he has certainly made a success of it. He works hard and so do all his staff. He had as many as 72 impressions in one day—there is a great amount of prosthetic work to do.

I get around with a Chev. We also have a truck but many time have I wished for a mobile unit. With small groups of troops, 200 to a group, here and there, believe me a mobile unit would have been put to good service.

I am hearing of the fine things the Ladies' Auxiliary are doing. The money they sent us was much appreciated and is being used to advantage.

The British dentists have been more than kind to us. The British Dental Society are making us temporary members and sending each of us a copy of their monthly magazine. They are also giving us a dinner at the "Dorchester".

Our relations with other units is the very best. I have had every co-operation and I believe our services are very much appreciated.

Interesting photograph taken in England. Major Trelford, Officer Commanding the Canadian Dental Corps overseas, is seen talking to His Majesty the King and to General McNaughton. Major Ira Hamilton is standing at attention just to the right of the King and the Hon. Mr. Massey is seen in the background in civilian attire.

I suppose the papers would carry the news about the King visiting us. He was interested and heard our story both from General McNaughton and myself. Our unit looked fine.

I have been to London a few times to buy supplies but I have seen practically none of it. Duties keep me until it is dark and then I am content to come "home". Hope to change this soon but until things are well organized and less rushed I feel I should stay on the job. I know the fellows here would all want to send their best to you all and I do wish you would express my good wishes to the Fellows of the Academy. Tell them we do appreciate letters.

With all good wishes and best personal regards.

Very sincerely,

(*Signed*) "BILL".

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Alternative Dental Treatment

1. Personnel of the Canadian Active Service Force may now obtain, through the following personal payment plan, dental restorations of a higher intrinsic value than are available to them at the public expense.

2. When the service is rendered by a civilian dentist the Department will pay a portion of the cost, equal to the fee covering the restoration ordinarily authorized for such cases. The balance will be the personal liability of the man and the collection of it the responsibility of the dentist. The District Dental Officer will check the work recommended with the individual's requirements, and the estimate with the prescribed Schedule of Fees. If satisfactory, he, together with the patient, will sign the authority to proceed. When the work has been completed, the account will be rendered and paid at the authorized rate. Only the amount for the restoration ordinarily prescribed will be submitted by the dentist.

3. When the service is rendered in a Canadian Dental Corps clinic the individual will again be liable for that portion of the cost in excess of that of the treatment customarily specified. The amount shall be determined by the authorized Schedule of Fees.

When the work is completed, the dental officer will enter details on the Dental Record, M.F.B. 465, and, in addition, will complete and sign three copies of the Dental Memorandum, M.F.B. 465B. The patient will also sign them in acknowledgment of his satisfaction with the service. The dental officer will forward all three copies with his Daily Return of Dental Treatment, MFM. 28.

The District Dental Officer will then file one copy and forward the remaining two copies to the unit of the patient.

The Officer Commanding the unit will sign both and present them to his unit paymaster for the necessary deduction on the pay-list in the column, "Other Charges", according to F. R. & I. 1939, Article 55.

The unit paymaster will certify them as to recovery, attach one to his pay-list as a supporting voucher and return the other copy to the District Dental Officer.

The District Dental Officer will check this certified copy with his file, and forward it to the Director of Dental Service.

4. Subsequent alteration or repair required on work supplied under these conditions will be the responsibility of the individual on similar terms.

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Headquarters M.D. No. 2

Two huts of very modern, and complete design, have been authorized by N.D.H.Q. and are now completed at Camp Borden.

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M.D. No. 10

The members of the dental corps in M. D. No. 10 have been practising the necessary details for a street or church parade in order to carry on with other units. There is a sufficient number at present in the corps to form two platoons for parade purposes.

The latest recruit to the Corps is Pte. Mark Kennedy, who holds the Military medal, also the Mons, Victory and General Service ribbons. He was awarded the M. M. for action at Messines Barrier in the winter of 1915-1916.

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Ladies' Auxiliary of M.D. No. 10

The tea held in the Hudson's Bay Co., March 18 by the C. D. C. Ladies' Auxiliary, was a splendid success. In addition to a collection of about $45.00, the ladies added another eight members. The display of work was particularly interesting. Information about the work was nicely illustrated by display cards made by June Sewell, a fourteen year old daughter of Pte. Sewell.

M.D. No. 12

Captain A. Gregory Smith has been appointed acting District Dental Officer of M. D .No. 12, Regina, in place of Lieutenant-Colonel G. L. Cameron, who was transferred to Ottawa as Second in Command of the Canadian Dental Corps.

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Promotions in M.D. No. 2

The following dental officers have been promoted to the rank of Captain as recently reported in orders—J. H. Burrows, Lloyd Davis, G. B. Shillington, J. L. Dixon, W. L. Finlay, Glen Mitton, Stan. Madill, D. H. J. MacDonald, W. T. Gildner (Q.M.).

Greetings From C.D.C. Overseas For Col. F. M. Lott

In connection with the complimentary banquet tendered Col. Lott and sponsored by the Faculty of Dentistry, University of Toronto in early March, Dean Mason is in receipt of the following cablegram dated April 5, 1940,

—"Confusion in dates reason no message from officers here. All wish their tribute to Col. Lott recorded. Please arrange.

(*Signed*)—"TRELFORD".

Dean Mason has requested that the good wishes from the boys overseas for their chief, Col. Lott be recorded in this way.

NEWS FROM THE PROVINCES

ALBERTA:

Edmonton Dental Society

The regular April meeting of the Edmonton Dental Society was held at the Macdonald Hotel, April 2, at 6.30 p.m. Dr. Ness, of Camrose, was the speaker of the evening.

SASKATCHEWAN:

Moose Jaw Dental Society

There was a good attendance at the March meeting of the Moose Jaw Dental Society which was held in the Grant Hall Hotel with the President, Dr. A. D. Leask, in the chair. Dr. W. Fraser Smith, of Regina, and Lt. Ian MacKenzie, of the Dental Corps and stationed in Regina, gave clinics. Lt. MacKenzie gave a very fine clinic on the three-quarter crown, using charts and large tooth models to illustrate the precision method as taught by Dr. E. T. Tinker, of the University of Minnesota. Dr. W. F. Smith can be counted on to give a careful, thorough clinic at any time, but his clinic on this occasion was particularly interesting. He demonstrated the method, which has been given in clinics by Dr. F. S. Meyer, of Minneapolis, and Dr. S. Jaffe, of Washington, D.C., of securing balanced occlusion and eliminating cusp interference during mastication.. The teeth are set up on an ordinary plane-line articulator and finally adjusted on a Hooper Duplicator. This method appears to answer the requirements of a precision technique which does not need correction of the occlusion at the time of insertion.

At the April meeting of the above Society the election of officers for the season of 1940-41 took place, and the following is the result: President, Dr. A. F. Muirhead; Vice-President, Dr. A. C. Necker, and Secretary-Treasurer, Dr. W. J. McCauley. It was decided to invite the members of the Regina Dental Society to be our guests at a date in May suitable to them. They are to be requested to furnish a speaker for the joint meeting.

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C.D.A. Delegate

Dr. L. J. D. Fasken, of Regina, has been appointed Saskatchewan delegate to the Canadian Dental Association to replace Lt.-Col. G. L. Cameron who has been transferred to Ottawa as Second in Command of the Canadian Dental Corps.

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Moose Steaks for Dental Societies

The Moose Jaw Dental Society which together with the Regina Dental Society received for the March meeting, gifts of moose steaks from Dr. J. A. Brass, Yorkton, and Dr. F. G. Garvin, Canora, were recently in receipt of a humorous letter from the latter. It was claimed that the late President of the Saskatchewan Dental Council, Dr. Brass, had clubbed a young moose calf to death, since his Winchester had failed him at critical moments. That was the explanation given for

The Killer, showing the primitive way he wanders through the bush, stalks his game and makes the kill, as vouched for by Dr. F. G. Garvin, of Canora.

the excellence and tenderness of the steaks which all enjoyed, regardless of the method by which they may have been secured.

MANITOBA:

Manitoba Loses Prominent Dentist

The dental profession has experienced another loss in its ranks with the passing of Dr. J. H. Greenfield who had been in active practice in Winnipeg since 1903. Dr. Greenfield had been a member of the Board of Directors of the Manitoba Dental Association for six years filling the office of President for one year. He was also a charter member of the first dental society of Winnipeg, known as the Winnipeg Dental Club and was an active member and a Past President of the Winnipeg Dental Society. For the last five years Dr. Greenfield was chairman of the committee in charge of the Relief Dental Service for the City of Winnipeg and gave very valuable and efficient service in this capacity. The high esteem in which Dr. Greenfield was held was evidenced by the large number of the profession attending his funeral service, over 100 dentists being present.

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Dr. Proctor Appointed Chairman

Dr. A. E. Proctor, who is Chairman of the committee in charge of travelling dental clinics sent out under the auspices of the Canadian Foundation for Preventive Dentistry, has been persuaded to fill the vacancy in the chairmanship of the City of Winnipeg Dental Relief Service caused by the death of Dr. J. H. Greenfield. This dental service is under the management of the Manitoba Dental Association and the committee in active charge of the service is appointed annually by the Board of Directors of the Association. The funds expended are provided by the City of Winnipeg and this branch of City expenditure is the only one which does not exceed its budget. This, no doubt, was due mainly to the careful management of Dr. Greenfield in his capacity as Chairman of the Management Committee.

•

Complete Medical Service for Firemen

A complete medical service for 580 Winnipeg firemen and their dependents, described as the first co-operative community medical service in Canada was started on April 15, and will be continued for one year on an experimental basis. This is the result of an agreement between the firemen and the Manitoba Medical Association.

A total of 225 doctors including 13 specialist groups will provide a complete medical service with the exception of hospitalization. The plan will be entirely financed by fees collected by the firemen and amounting to 10½ cents a day for a family of four. Administrative costs are expected to be as low as 10 per cent.

Set up on a non-profit basis, the organization and its funds will be controlled by two trustees, one appointed by each of the two parties; an advisory board to settle disputes, composed of two physicians and one fireman; and an administrative control committee of two physicians and two firemen. A medical

referee will decide on disputed doctors' fees and his decision may be appealed to the advisory board.

The agreement is for one year and is renewable by mutual consent. To protect against financial loss the doctors have agreed to let the organization hold back 25 per cent of the medical fees for the first four months and the firemen have agreed not to ask for general health examination for six months.

All profits will be used to reduce the fees paid by the firemen. These fees are $15 a year for each fireman, $9 a year for each adult dependent and $7.20 a year for each junior dependent making a total of $38.40 a year for a family of four. A schedule of doctors' fees has been set up which is lower than the usual fees.

•

Dental Nurses and Assistants

At the February meeting of the Winnipeg Dental Nurses' and Assistants' Association the guest speaker was Mrs. C. Graban, President of the Local Council of Women.

It was decided to hold a Theatre Night for the purpose of raising funds.

The Association held its April meeting in the St. Regis Hotel. The guest speaker was Dr. H. J. Merkeley who gave a very interestesting address on 'The History of Dentistry."

ONTARIO:

XI PSI PHI Fraternity

Don't forget the "ZIP" fraternity re-union during the C.D.A. and O.D.A. Convention on May 27 at 6.30 p.m. at Royal York Hotel.

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Toronto Ladies' Auxiliary Hold Election

The new officers of the Ladies' Auxiliary to the Toronto Academy of Dentistry and Canadian Army Dental Corps for the coming years are as follows—President Mrs. Leo. Schumaker; Past President, Mrs. L. D. Drew-Brooke; 1st Vice President, Mrs. C. L. Eaton; 2nd Vice President, Mrs. S. S. Crouch; Recording Secretary, Mrs. K. R. Harris; Corresponding Secretary, Mrs. G. Covey; Treasurer, Mrs. Harold Hoag; Councillors—Mrs. E. W. Paul, Mrs. G. V. Morton, Mrs. L. M. Grose, Mrs. H. G. Bean, Mrs. W. G. Trelford.

Dental Nurses and Assistants

TORONTO—The regular monthly meeting of the Toronto Chapter was held in the Club Room of the Royal York Hotel, April 1, with the Vice-President, Miss Helen Campbell, in the chair. Twenty-eight members were present. Business for the coming Ontario Convention was discussed. Miss Marion Edwards was asked to be Convener of a Committee to make a "Vitamin House," to be displayed at the Convention. Great interest was shown in this new idea. The rest of the evening was given over to an interesting and instructive Round Table discussion.

THUNDER BAY—The regular monthly meeting of the Thunder Bay Dental Assistants' Association was held on March 19 in Dr. Blackburn's office with eight members present. The business part was conducted by the President, Miss Ruth Garland. Miss Garland was elected to be the Reporter for the Ontario Bulletin. Lunch was served by the Fort William members.

WINDSOR—The Essex and Kent County dental assistants held their April meeting in the Canada Building with Miss Dorothy Scott presiding. It was decided to hold a dinner meeting in Chatham on April 24, to enable all Leamington, Kingsville, Essex and Chatham members to be present. A letter was read inviting all members to attend the Michigan State Association Spring meeting, April 17, in the Statler Hotel, Detroit, at which time Miss Winnifred Grier will present a guest clinic on "Impression Trays." Following the business session Miss Mildred A. Chambers, of the Victorian Order Nurses, spoke on "Prenatal Care" and "Public Health Nursing."

LONDON—The London dental nurses and assistants held their regular monthly meeting on March 11 in the office of Dr. Fred Kennedy. A report of the successful rummage sale, held on March 9, was given by Misses Irene Challoner and Helen Huyck. Convention plans were made with discussion on posters and clinics. Miss Loretta McCaughey gave a practical demonstration of "Sterilization of Instruments and Dressings."

HAMILTON — For the March meeting, the Hamilton dental nurses and assistants were guests of the Hamilton Dental Association. Dinner was served in the Brittany Room of

the Royal Connaught Hotel. We then joined the dentists to hear their guest speaker, Dr. Reed O. Dingman, who gave a most helpful talk on "Oral Surgery," illustrated by lantern slides.

SARNIA—An infant has been born to the Ontario Association, in the form of a new Chapter at Sarnia, with Miss Marjorie Crees as President. The Provincial President, Mrs. Ferna Cook and the Convention Chairman, Miss Loretta McCaughey, were guests of the Sarnia and district dental assistants at their meeting on March 7. The members and guests met for dinner at the Hotel Vendome and later in the office of Dr. Storey, where a short business session was conducted by the President. Miss McCaughey was then given charge of the meeting and plans were made and discussed for the Ontario Convention. Mrs. Cook closed the meeting with some very inspiring remarks.

Best wishes to the new chapter from all Ontario members.

QUEBEC:

Dr. Walsh Honoured

Arthur L. Walsh, D.D.S., F.A.C.D., Dean of the Faculty of Dentistry at McGill University, has been named President-elect of the American Association of Dental Schools, at a meeting held recently at Philadelphia.

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C.D.A. Delegate

Doctor J. K. Carver, of Montreal, has been appointed as one of the delegates from Quebec to the Canadian Dental Association, in place of Doctor Bourke who is now serving in the Canadian Dental Corps.

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Resolution

At a recent meeting of the Executive of the Mount Royal Dental Society it was unanimously decided to make the Journal of the Canadian Dental Association its official organ.

NEW BRUNSWICK:

New Brunswick Dental Society

The above Society has published the following public notice of a new by-law to be added to the New Brunswick Dental Act. It has been passed and approved by the Council of the New Brunswick Dental Society as a by-law becoming Article 27 of the rules and regulations of the Society:—

"Notwithstanding anything in 'The New Brunswick Dental Act, 1929' or in the rules and articles of the Society contained, the fee for bona fide retired practitioners under the said Act, resident and registered in the Province of New Brnunswick, and for non-resident practitioners, so registered therein, shall be the sum of two dollars per year payable on the first day of January in each year beginning with the first day of January, 1940, and recoverable in like manner as other fees prescribed and determined by the provisions of the said Act."

BRITISH COLUMBIA:

Vancouver Dental Society

The members of the Vancouver Ferrier Study Club were the guests of the Vancouver Dental Society at its regular monthly meeting. Gold Foil and its Importance in Operative Dentistry was the title of the paper presented by Dr. Douglas J. Sutherland, Chairman of the Club. Chair clinics were presented by other members showing the results that had been obtained and a demonstration was given of the application of the rubber dam. Those who do not use the rubber dam in the practice of dentistry are not doing their part in the elevation of the profession to that high ideal to which we should all strive. By its application every type of restoration can be made better and with greater ease and speed than by other means. The new technique not only does not injure the soft tissues but protects them in every case. "Dentistry is truly a health service and professional dentists consider and practise it as such. There are many in our profession, however, who are interested in dentistry as a vocation only and they religiously and destructively practise it as such."

In spite of the new materials and methods of procedure, gold foil, and it alone is used as a standard by which we judge all other materials, because it is the best method of securing marginal adaptation to the cavity of the tooth and perhaps the only method of securing such adaptation with a material which is insoluble in the fluids of the oral cavity and which will remain unchanged in shape under

stress of mastication. It fulfils all the requirements of the ideal filling material with the exception of colour and ease of insertion.

In incipient caries and in class 3 and 5 cavities the indication is more apparent for the simple reason that in these two classes we find more failures of other filling materials. "A very large percentage of the men who in the past have made dental history and those who are making it today have been and are skilled foil operators. There are few, if any, radicals in their ranks. In fact, they perhaps constitute the safest and sanest and most conservative group in the profession (Hollenback).

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U.S. Dentists Now Prevented from Advertising in B.C.

Rights of United States dentists to advertise in British Columbia through the medium of newspapers or radio are removed by an amendment to the B.C. Dentistry Act approved by the B.C. Legislature at the session which just closed. The act follows a long drawn out legal battle which was finally settled in the Supreme Court over the action of a Spokane dentist in advertising in papers in the Kootenay area of B.C.

Any remaining loopholes have now been plugged by the new clauses in the Dentistry Act. The measure prohibits U.S. dentists from urging B.C. residents through newspapers or radio to go across the border for dental treatment. It also prevents United States dentists from advertising prices for treatment, as B.C. dentists are forbidden to advertise prices under existing statutes.—*Canadian Printer & Publisher: February, 1940, A.D.A. Release.*

Editor's note: The editor wrote to Dr. Bricker, our B.C. editor of the Journal, for confirmation of the above statements. The letter was turned over to the provincial dental registrar, Dr. W. J. Lea, who replied as follows:—

Vancouver, April 8, 1940.

To Doctor Bricker:

1. Pursuant to your request, I submit hereunder an interpretation of the amendments to the Dentistry Act, assented to by the Legislature of British Columbia on the 27th day of November, 1939.

2. Section 63 of the Act was amended to make it unlawful for dental laboratories to supply or offer to supply to the public artificial teeth, dentures or repairs therefor.

3. It was further amended by adding a subsection which makes it unlawful for any person not registered under the Act, within the Province, directly or indirectly offer to practise, or hold himself out as being qualified or entitled to practise, the profession of dentistry either within the Province or elsewhere, and for any person to, within the Province, directly or indirectly hold out or represent any other person not registered under this Act as practising or as qualified or entitled or willing to practise the profession of dentistry in the Province or elsewhere, or circulate or make public anything designed or tending to induce the public to engage or employ as a dentist any person not registered under the Act.

4. The latter amendment obviously prohibits U.S. dentists from doing anything in the Province of British Columbia which members of the College of Dental Surgeons of British Columbia may *not* do. In this connection, your attention is particularly drawn to the fact that the Dentistry Act does not contain any section on advertising, the whole matter being left to the discretion of the Council to exercise the authority vested in it by section 39.(2.) of the Act to hold an inquiry into the conduct of any member of the College who is alleged to have been guilty of unprofessional conduct in any respect, and, if the evidence adduced at the inquiry is sufficient, to suspend such person from practice or to erase his name from the register.

5. In determining the ethical status of a member of the College, the following "yardstick" is consciously or unconsciously employed:

> "It shall be unethical for a dentist in the pursuit of his profession to do anything with regard to it which would be reasonably regarded as disgraceful or dishonourable by his professional brethren of good repute and competency."

6. The words used might with all propriety be used as a code of professional ethics. They have been taken directly from the famous judgment of Lopes, J., which was adopted by Lord Esher, Master of the Rolls, in the leading case of Allison vs. The General Council of Medical Education.

7. This seems to be better than a "Code of

Ethics" listing prohibitions, which would inferentially mean that all things not listed might reasonably be considered as "ethical". Once you take it upon yourself to define unethical or unprofessional conduct, or to prepare and use what is to be a guide in arriving at conclusions, you leave it open to interpretation arrived at by laymen rather than by members of the profession. If a governing body has found, upon due inquiry, that a dentist has been guilty of unprofessional conduct, and the evidence from which its decision was adduced was reasonably satisfactory, such decision will most likely be sustained by the Courts.

8. I trust that from the above information a correct statement of the situation in respect of the practise of dentistry in British Columbia may be prepared for publication.

(Signed) W. J. LEA, *Registrar.*

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B.C. Dental Association

The annual meeting of the British Columbia Dental Association will be held May 11 and 12, with headquarters in the Vancouver Hotel. It will take the form of a convention, business meeting, and golf tournament. Saturday, May 11, will be devoted to clinics and papers of exceptional interest, beginning with a breakfast and winding up with a dinner meeting at night.

The Program Committee has been very fortunate in securing Dr. Hermann Becks of San Francisco as our guest essayist. Dr. Becks is an outstanding man in our profession. He is bringing to us a vast store of practical information which cannot help but give each of us a much needed stimulus toward better dentistry.

Sunday morning the boys will be teeing off at Burquitlam, with much sport and many prizes in the offing.

G. D. STIBBS, *Secretary.*

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Penticton Dental Clinic

In March the Penticton Council agreed to provide the sum of $2,000 for the establishment of a dental clinic to provide dental service for all Penticton school children and for local adults on relief.

EMPIRE NEWS

GREAT BRITAIN:

Supply of Dental Rubbers

In a recent note under Association Intelligence it was sought to enlist the co-operation of the profession with a view to restricting the use, during war-time, of dental rubbers containing vermilion. It was made clear that a system of voluntary rationing would permit of sufficient facing rubber containing vermilion being made available provided non-vermilion rubbers were in the main used for base purposes. The difficulty of obtaining a sufficiency of mercury, due to transport to some extent, but in the main to its use for national purposes, renders it imperative that the profession should give heed to this request for co-operation and without delay substitute non-vermilion rubbers for base purposes. — *B. D. Jour., March 1, 1940.*

•

Waiting Patients Invited to Knit

On the waiting-room table of a Worthing, Sussex, dentist, patients find an unfinished khaki scarf. On it is a message: "If you have to wait, would you care to knit a few rows of this scarf? Every little helps." The completed scarf will be sent to the Army Comforts Depot. — *Dental Magazine and Oral Topics.*

•

The Oslo Breakfast in London

The London County Council's recent experiment with a modification of the famous Oslo breakfast, this time in the form of a "health dinner" merits the approbation of dental opinion. Consisting of salads with 1½ oz. of cheese grated thereon, 3 oz. of wholemeal bread, ¾ oz. butter, 2/3 pint of milk, and a raw apple or orange, it produced considerably greater weekly gains in height and weight in necessitous children than the ordinary hot dinner of a neighbouring centre. There is every reason to suppose that the effect of this diet on the dental tissues will be good, both from the point of view of nutrition and from the beneficial action which

the raw vegetables and fruits may be expected to exercise locally.—*B. D. Jour., March 1, 1940.*

•

Trailer Dental Clinics for Rumania

A well-known British firm has recently completed the construction of 40 trailer dental clinics, part of a large order placed in this country by the Royal Rumanian Government. —*Br. D. Jour., March 15, 1940.*

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Canadian Dental Corps

Last month the War Council of the British Dental Association gave a complimentary dinner to members of the First Division of the Canadian Dental Corps, under command of Major Trelford.

AUSTRALIA:

Dental Auxiliary of Australian Army Medical Corps

The Dental Auxiliary of the Australian Army Medical Corps Comforts Fund has been formed by the wives and friends of members of the dental profession for the purpose of providing comforts for the personnel of the A.A.M.C., with special attention to the needs of the dental units.

The ladies of the Dental Auxiliary have been busy making socks, operating gowns, mechanics' aprons, dental napkins, pot-holders, flask mitts, dusters, cushions, pyjamas, etc., and also raising money by social functions.

•

School Dental Essay Competition

The 1940 School Dental Essay Competition and Examination was conducted throughout the State schools of New South Wales on March 29. Essays and papers were written at school, under teachers' supervision.

Particulars were as follows:—

1. All children attending public, primary or high schools in New South Wales were eligible to compete.

2. There was no entrance fee.

3. Essays were not to exceed 800 words, and had to be written at school under teachers' supervision.

There were three grades in this competition, as follows:—

(a) Pre-Leaving Certificate Standard.—Essay title: "A Healthy Mouth is Essential to Physical Fitness." 1st prize, £5; 5 prizes of £1 each.

(b) Pre-Intermediate Certificate Standard.—Essay title: "What are the Essentials for a Healthy Mouth." 1st prize, £5; 5 prizes of £1 each.

(c) Primary School Dental Examination.—Competitors were required to answer three questions out of six, there being two standards: (i) Fourth Class Standard: 1st prize, £1; 8 prizes of 10s. each. (ii) Fifth and Sixth Classes Standard: 1st prize, £1; 8 prizes of 10s each.—*D. Jour. of Australia, Feb.* 1940.

•

Dental Mechanics (State) Award

The rates of remuneration payable to mechanics in the State of New South Wales are as follows:—

Sydney, Newcastle, Port Kembla-Wollongong—

For adult male employees performing vulcanite or other non-metal work: minimum weekly rate £5 4 0

Elsewhere in the State—

For adult male employees performing vulcanite or other non-metal work: minimum weekly rate £5 1 0

Sydney, Newcastle, Port Kembla-Wollongong—

Adult males employed in metal work, or a combination of metal and vulcanite or other non-metal work £5 16 6

Elsewhere in the State—

Adult males employed in metal work, or a combination of metal and vulcanite or other non-metal work £5 13 6

Wages payable to adult female employees are fixed at not less than three-fifths of the respective amounts for males.—*D. Jour. of Australia, Feb.* 1940.

GENERAL NEWS

Nation-Wide Survey

The Economics Committee of the American Dental Association will sponsor a nation-wide survey of the dental needs of the adult population during the week of May 27-June 1.

Forty thousand cards will be distributed in 30 states upon which the data will be recorded, as disclosed in the examinations by

8,000 dentists of their own patients in their own offices. The territory to be included has been determined on the basis of population, race, industry and economic conditions. The participating dentists have been as carefully selected.

•

Open Letter

To all investigators, throughout the world, in the field of dental caries.

The volume of "Dental Caries"—to which, in open letters and published announcements, beginning on April 18, 1938, you were invited to contribute statements of your results and conclusions—was published in October 1939. The book, consisting of 189 pages, contained summaries by 195 authors or groups of authors in 25 countries.

A second edition will be issued. Its value will be increased by the addition of summaries from investigators who failed to co-operate in the compilation of the first edition, and also by affording opportunity to all previous collaborators to revise their summaries in accord with later findings. Some of the summaries in the first edition were dated as early as April 1938. All summaries may be revised as of a new date in 1940.

It is requested that, to give each concise summary its greatest value, the most general and comprehensive findings and conclusions be stated first — supplementary and supportive data, worded briefly and directly, to follow and to be published in smaller type as in the first edition. Each author is also requested to concentrate his summary on the main data of his own findings and conclusions, and to eliminate opinions that merely repeat those of earlier observers, so that the revised volume will not require wasteful expenditure for repetitional, as distinct from corrective or coordinative comment on the work or views of others. The revised edition is intended to summarize the opinions of the competent active observers and investigators in all parts of the world, in brief and direct statements of their *findings* on the aetiology, prevention, control, arrest, of dental caries, *as stated by themselves —and representing in their own words the conclusions which, in their judgment, are the enduring results of their efforts and experiences.*

You are cordially invited to co-operate in the preparation of the second edition. Did any colleagues who in your opinion might have collaborated on the first edition fail to do so? We invite your co-operation in bringing this opportunity to their attention.

MEMORANDUM FOR AUTHORS

Please include, in the revisions of your summaries:

(a) Your academic and professional degrees

(b) Your correct institutional address

(c) A new date of issue for the summary

(d) The first-page numeral for each article for each calendar year. (Give *only main* references to your own publications relating directly to caries.)

WILLIAM J. GIES, *Secretary,* 632 West 168th St., New York City.

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Canadian Dental Centenary Celebration

On May 27 the Canadian Dental Association and the Ontario Dental Association are holding a Centennial Luncheon at the Royal York Hotel in Toronto.

The guest speaker will be Dr. Arthur H. Merritt, of New York City, President of the American Dental Association.

The following guests have been invited:—

Miss Charlotte Whitten, O.B.E., Executive Director, Canadian Welfare Council. Mr. E. E. Reid, President, Canadian Dental Hygiene Council. Mr. Norman Summerville, K.C., Chairman, Canadian Red Cross. Mrs. W. B. Horkins, National President, Imperial Order Daughters of the Empire. Dr. Frank S. Patch, President, Canadian Medical Association. Col. Frank Lott, Director of Dental Services. Dr. Geo. S. Stephens, Chairman, Canadian Hospital Council. Lt.-Col. S. A. Moore, President, Canadian Dental Association. Dr. G. J. Wherrett, President, Canadian Tuberculosis Association. Hon. Ian Mackenzie, Minister of Pensions and National Health. Dr. W. C. Oxner, President, Dominion Dental Council. Dr. G. V. Morton, President, Ontario Dental Association. Mrs. H. M. McGregor, President, Federated Women's Institutes of Canada. Dr. Harvey Agnew, Secretary Department of Hospital Services of Canadian Medical Association.

Dental Appointments for School Children

A bill was introduced in the 1935 session of the legislature of the State of California which proposed that children may be excused from school for bona fide medical and dental appointments without penalty to the child, or without such absences serving to detract from the amount of the school budget.

The bill is now a law in California, but it was secured with difficulty. It passed the Assembly, but was killed in the Senate Committee by opposition of the State Department of Education. So great was the interest of dentists, parents, and many school officials throughout the state that the bill was again introduced this year. It passed the Assembly unanimously, and again met bitter opposition in the Senate. Two committee hearings were necessary before the bill was sent to the floor of the Senate for final vote. Representatives of the Department of Education and the California State Teachers' Association, it is said, opposed the measure on the presumption that it set a bad precedent. Strong pressure was brought to bear in an attempt to defeat the bill on the floor of the Senate, but so great was the demand from organized dentistry and from the lay public, through efforts of local groups of the Public Health League, that it passed the Senate on June 9, 1939.

The text of the bill follows: No absence of a pupil from school for the purpose of having dental service rendered shall be deemed an absence in computing average daily attendance.—*Excerpt from Editorial, Am. J. of Ortho. and Oral Surg., Dec., 1939.*

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"Twelve Periodontal Studies"

Dr. Harold Box has just completed writing a series of twelve studies in periodontia in which he gives a typical Canadian view point of this subject. Each study is complete in itself, yet they are all interrelated and in a logical sequence. The work is presented in a concise, simple and readable manner with a view of placing the author's actual experience in the routine of his practice before his readers. It is hoped that in a very short time this material will be available to any dentist desiring it, in book form at a very moderate cost. It can rightly be called a "Handbook of Periodontia" as it contains just that information the dentist in general practice has been looking for.

Watch for review of Dr. Box's work, "Twelve Periodontal Studies" in this journal as soon as copies are available.

•

Proposed California Initiative for Compulsory Health Insurance

An initiative for compulsory health insurance will be on the November, 1940 ballot, unless its printed forms, now ready for circulation, are not distributed for voter's signatures. The proponents of the measure believe the expense of securing needed signatures (estimated usually at from $25,000 to $35,000) can be greatly lessened by voluntary circulation of the petitions among members of labour and other organizations.—*California & Western Medicine: March, 1940, A.D.A. News Release.*

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Indict Chicago Dentist: Accused by 720 Teeth Buyers

Sylvan B. Heininger, a dentist, advertised that dental plates from his skilled hands would enable their possessors to "masticate, chew, talk, laugh and smile" as if the teeth were natural. But 720 customers throughout the country snapped back with complaints that the choppers were ill fitting and uncomfortable.

These accusations were made in an indictment returned by the federal grand jury charging Heininger with mail fraud.

Assistant United States Attorney, A. Bradley Eben, said Heininger's income from March, 1933, to April, 1939, was $661,000. The plates cost from $5 to $35. — *Chicago Tribune: 3-16-40, A.D.A. News Release.*

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C.D.A. Luncheon at Toronto May 28

The noonday luncheon on May 28th during the joint meeting of the Canadian Dental and the Ontario Dental Associations will be addressed by the Hon. Mr. Justice J. G. Gillanders, D.F.C., and Lt.-Col. George Cameron, D.S.O. Lt.-Col. S. A. Moore, President of the Canadian Dental Association will give his presidential address at this meeting.

On the evening of May 27th at 10.30 p.m., D. S. time, Lt.-Col. Moore will broadcast an address over the C.B.C. national network.

Tribute to the Late Dr. C. N. Johnson

The late Dr. C. N. Johnson's daughter and son-in-law, Mr. and Mrs. John Reynolds Dewson, of Fox Lake, Illinois, have just had published a beautiful 183 page volume, containing tributes from all parts of the world paid to their illustrious father.

Besides photographs of Dr. Johnson taken in earlier as well as later life, in the class room and out of it, there are several fine biographical sketches written by prominent American dentists as well as an account of the testimonial banquet tendered him by the dental profession of Chicago and his former students, in celebration of his completion of forty years of professional service, April 11, 1921, including a large list of letters and telegrams received.

There is also a list of about 70 telegrams and letters received on the occasion of his 75th birthday from dental leaders throughout the world.

The memorial tributes from the World of Dentistry are particularly impressive, the cables from every quarter of the globe, the professional journal editorials, the letters of sympathy to the family all bespeak of the very high esteem in which our beloved C. N. Johnson was held in the minds and hearts of all who had the privilege of knowing him.

The closing pages of this memorial are devoted to a few extracts from his gifted pen.

The Canadian dental profession, and indeed the dental profession of the world, are indebted to Mr. and Mrs. Dewson for recording so beautifully the thought of the dental world as it pertained to this great and good man, who was born in Canada and lived there in his earlier days, and who always held a warm spot in his heart for everything Canadian.—*M. H. G.*

IN MEMORIAM

Bertram E. Wilson, of London, Ontario, aged 56, died suddenly at Daytona Beach, Florida, April 4. He was graduated from the R.C.D.S. of Ontario and commenced practice in London about 35 years ago.

He was a prominent member of Dundas Centre United Church, a past master of King Solomon Lodge, No. 378 A.F. & A.M.; a 32nd degree Scottish Rite Mason, and a member of Mocha Temple.

Dr. Wilson is survived by his widow, two daughters, one sister, and two nephews, both practising dentists in Toronto.

•

Samuel Richard Clemes, of Toronto, died April 3. He was graduated from the R.C.D.S. of Ontario in 1893 and in medicine from the University of Toronto in 1897. He practised as both doctor and dentist first in Collingwood, and for the past 27 years in Toronto.

He was an elder in Kew Beach United Church.

Dr. Clemes is survived by his widow and two sisters.

Elgin Shaw Hardie, of Toronto, Ontario, aged 69, died April 3. He was graduated from Trinity College 45 years ago, and for some time practised in Caledonia.

Dr. Hardie is survived by his widow and seven daughters.

•

George B. Winter, of St. Louis, Missouri, U.S.A., aged 62, died March 28. He was a past president of the American Dental Association and was known throughout the world for his research in the field of exodontia.

Dr. Winter had many friends in Canada who mourn his death and who would extend sincere sympathy to the sorrowing family.

•

Cecil Edwin Chambers, of Toronto, Ontario, aged 36, died April 21. He was graduated from the R.C.D.S. of Ontario in 1930 and practised his profession until he became ill about three weeks ago. He was a charter member of the North Toronto Kinsman's Club.

Dr. Chambers is survived by his widow, his parents, two sisters and a brother.

. . . SECTION FRANÇAISE . . .

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Toute ma Reconnaissance

par STEPHEN A. MOORE,
Président de l'Association Dentaire Canadienne

Il y a bientôt deux ans, à Vancouver, j'avais l'insigne honneur d'être élu président de l'Association Dentaire Canadienne. J'ai accepté cet honneur et crois m'être acquitté de ses obligations au meilleur de mes aptitudes.

Dans l'exercise de mes fonctions, j'ai eu l'avantage de rencontrer des dentistes, de l'Atlantique au Pacifique, de renouer de vieilles amitiés, et d'en lier de nouvelles. J'ai été reçu très cordialement partout où je suis allé, mais comme je touche au terme de ma charge, je tiens tout particulièrement à exprimer ma gratitude aux dentistes de langue française, membres de l'Association Dentaire Canadienne. J'ai eu la bonne fortune et le plaisir de joindre vos Sociétés de temps en temps et à chaque occasion vous m'avez offert une hospitalité telle, que sa chaleur me faisait croire que je vous avais connu et que j'avais vécu avec vous depuis de longues années.

Je désire aussi vous remercier pour la collaboration cordiale que vous avez apportée à l'Association Dentaire Canadienne, et que je retiens pour mon successeur. Je me suis efforcé de représenter de mon mieux vos intérêts en dentisterie et ce me sera toujours un honneur d'être considéré comme un ami et le porte-parole de vos intérêts.

Ce n'est pas sans hésitation que je mentionnerai certains noms en particulier, mais il y en a dont les services furent si évidents que je croirais manquer à mon devoir en ne les signalant pas à votre attention. M. le Doyen a été très bon et il m'a gracieusement aidé de toutes les manières possibles. Le docteur Charron, ainsi que le docteur Vinet, votre représentant à Vancouver en 1938, ont prêté une attention soutenue à vos intérêts. J'offre aussi ma reconnaissance aux docteurs Paul Geoffrion et Baillargeon, membres du comité de rédaction, ainsi qu'au docteur Gérard DeMontigny.

Mais, c'est vers le docteur Alcide Thibaudeau que je voudrais spécialement attirer votre attention. Comme rédacteur de la section française du Journal de l'Association Dentaire Canadienne, le docteur Thibaudeau a travaillé avec une inlassable énergie et a donné ses services sans compter et sans souci de remunération.

J'ai oublié sans doute les noms d'autres confrères que j'aurais dû mentionner, mais à tous j'offre mes remerciements les plus sincères. Aux dentistes de langue française, membres de l'Association Dentaire Canadienne, mes meilleurs souhaits de succès et de progrès.

Editorial

Le Docteur STEPHEN A. MOORE,
Président de l'Association Dentaire Canadienne

Les statuts inexorables de notre Association comme ceux de bien d'autres, veulent que l'on change de président à des époques déterminées.

Le docteur Stephen A. Moore, notre président, vient d'atteindre le terme fixé à sa charge et donne sa démission.

Il n'est pas possible au rédacteur de notre section de laisser passer cet incident sans le signaler à l'attention de tous ses lecteurs. Je connais personnellement le Dr. Moore, mais n'ai pas eu l'avantage de vivre dans son intimité. Cependant, pour le juger, il n'est pas besoin de ces circonstances. Les témoignages de tous les Canadiens-français qui l'ont connu, ses actes et sa gestion des affaires de l'Association Dentaire Canadienne suffisent à nous rappeler que nous perdons en lui un travailleur infatigable et un ami personnel des Canadiens-français.

En effet, le docteur Moore, s'est dépensé sans compter pour promouvoir les intérêts de notre profession. Il a négligé ses propres affaires au point qu'elles ont dû en souffrir. Il n'est pas une convention, un congrès petit ou grand ou il n'a pas cru de son devoir d'être présent. C'est ainsi que plusieurs des nôtres ont appris à le connaître et à l'apprécier hautement. Notre continent est vaste; il l'a parcouru dans toutes les directions pour être partout où il y avait du bien à faire.

En plus de tout cela, il fut pour nous Canadiens-français, un véritable ami et nos représentants sont unanimes à le proclamer.

Pour tant de dévouement, tous les membres de l'Association Dentaire Canadienne regrettent le départ d'un tel président et le remercient cordialement. Au nom de tous mes confrères Canadiens-français, je le prie d'accepter l'expression de notre sincère reconnaissance.

Alcide Thibaudeau, D.D.S.

Commémoration du "Baltimore College of Dental Surgery"

DR. PAUL E. POITRAS

Depuis des années, je m'efforce à faire connaître et à aimer l'histoire de la chirurgie-dentaire, à la rendre populaire. Malgré moi, elle est encore bien ignorée, bien méconnue et si négligée. Ne la traite-t-on pas en parent pauvre? Cependant n'est-ce pas dû à elle si, réunis ici ce soir pour célébrer le centenaire de l'aînée des écoles dentaires, nous pouvons rappeler l'origine de notre profession?

De toutes les carrières qui s'ouvraient devant nous, de toutes les spécialités que la

médecine nous offrait à la sortie du collège, nous avons choisi librement la chirurgie-dentaire. De ce jour, nous nous sommes engagés à l'aimer et à la considérer comme la première et la plus belle des professions.

Si depuis cent ans nous avons avancé à pas de géant, nous nous devons de continuer la route tracée par nos prédécesseurs. Pour tous les esprits curieux et désireux de s'instruire, pour ceux qui travaillent non par force mais par goût, pour ceux qui voient autres choses que la rémunération d'une obturation ou d'une prise d'empreinte, pour ceux qui enfin voient plus qu'un gagne-pain mais un art qui comporte ses fastes, ses classiques et sa galerie d'ancêtres je dis: "Vivez le présent, regardez l'avenir mais n'oubliez pas le passé." Souvent les plus précieuses découvertes ne furent que des vieilleries trouvées. Une invention ou une découverte ne naît pas d'un seul jet, mais à la suite d'efforts mal orientés, au prix d'erreurs, d'arrêts et de recommencements, permettant à un seul nom de triompher, alors que bien des collaborateurs auront été rejetés dans les ténèbres de l'indifférence.

Ce centenaire est célébré par toute la profession. Un comité international "Dental Centenary Celebration" patronné par l' "American Dental Association" est à organiser un congrès et une exposition rétrospective à Baltimore, Maryland, les 18, 19 et 20 mars auxquels toutes les facultés dentaires américaines et canadiennes ont été invitées à participer. Le banquet de ce soir est donné en commémoration de cet événement. A la demande du président de l'Association dentaire canadienne, le docteur Stephen Moore, convalescent d'une laparatomie et encore trop faible pour supporter les fatigues du voyage, le docteur Eudore Dubeau parlera de la chirurgie-dentaire internationale à la faculté dentaire de l'université de Maryland, dimanche le 16 mars prochain; le docteur Roméo Lalonde, chef du département dentaire de la cité de Montréal, est délégué de la ville; le docteur Paul Geoffrion et moi-même représenteront l'université de Montréal.

Le premier février 1840, l'aîné des collèges dentaires, à la demande des docteurs Horace H. Hayden et Chapin A. Harris, obtenait de la législature de l'état du Maryland une charte lui permettant d'enseigner l'art de guérir les maladies des dents.

Le docteur Horace H. Hayden, (1769-1844) né en 1769, dans l'Etat du Connecticut commença à exercer son art à Baltimore en 1800: Idéaliste, rêveur, d'une imagination fertile, il fut, dès le début de sa carrière, convaincu de la nécessité de l'enseignement de la science dentaire d'une façon plus complète dans les écoles de médecine. Reçu médecin, il n'abandonna pas son art, au contraire il lutta avec ses confrères pour enseigner la médecine qu'il jugeait indispensable à tous les dentistes. En 1823, l'université de Maryland l'autorisa à donner des cours de dentisterie aux étudiants de la faculté médicale. En 1825, à la suite d'un désaccord, il démissionna. Se rendant compte de l'impossibilité d'une entente avec le conseil de la faculté, il fit preuve d'indépendance en commençant à former à son domicile quelques élèves dont Chapin A. Harris.

Chapin A. Harris (1806-1860) était âgé de vingt-cinq ans lorsqu'il arriva à Baltimore, en 1831, pour continuer ses études sous la direction du docteur Hayden; ce dernier ne fut pas lent à reconnaître chez son nouvel élève un travailleur infatigable, un homme d'une habileté plus qu'ordinaire, ayant les qualités nécessaires à l'aider à matérialiser un rêve fait depuis plusieurs années. Dès ce moment il n'eut pas de repos qu'il se le fût attaché.

La charte du collège était sanctionnée, le premier février 1840, le trois du même mois, se tenait la première réunion des membres de la nouvelle école pour élire un conseil dont le docteur Hayden était nommé président et le docteur Harris, doyen. Le 18 mai suivant le président et le doyen rédigeaient l'annonce suivante qui devrait être publiée dans le numéro de juillet 1840 de l' "American Journal of Dental Science."

"Baltimore College of Dental Surgery."

"Les cours de cette institution commenceront le premier lundi de novembre, (le 3) pour se continuer durant quatre mois. Les candidats au dégré de 'Doctor of Dental

Surgery' devront avoir suivi les cours de ce collège pendant deux sessions ou une session dans un école de médecine reconnu et une autre session dans ce collège.

"Le corps enseignant se compose de: Horace H. Hayden, M.D., professeur de physiologie et de pathologie dentaires; H. Willis Baxley, M.D., professeur d'anatomie et de physiologie; Chapin A. Harris, M.D., professeur de dentisterie opératoire; Thomas A. Bond, fils, M.D., professeur de pathologie et de thérapeutique spécialisés.

"Les frais de scolarité pour chaque professeur sont de trente dollars par année; le diplôme du doctorat se paie trente dollars et l'immatriculation cinq dollars."

Cinq élèves s'inscrivaient à des cours qui devaient constituer un enseignement dentaire que jamais encore on avait osé exiger des étudiants dentistes. Comme la profession était libre, la plupart des praticiens n'avaient peu ou pas de connaissances médicales. Les études se faisaient chez un dentiste établi où le jeune homme servait d'assistant . . . et de domestique. Les plus studieux achetaient un seul livre "Fauchard" le mieux fait et le plus connu de l'époque. Par l'annonce ci-dessus citée nous voyons que le collège donnait un enseignement rudimentaire; on devait forcément se restreindre aux matières les plus essentielles.

Un dentiste qui serait aujourd'hui âgé de plus de cent ans me racontait: un jour en classe d'anatomie le professeur commença son cours: "messieurs," dit-il, "voici l'os sphénoïde." Puis réfléchissant que cet os n'a qu'une importance secondaire il se ravise subitement: "Au diable l'os sphénoïde!" et sans plus de façon il passe à un autre os. Si cela fut dit, n'en soyons pas scandalisés! rappelons-nous que nos ancêtres se guérissaient du mal de dents en portant dans leur poche un os de la tête d'un poisson ou en plantant un clou dans un arbre. L'éducation dentaire n'a pu déraciner qu'en partie toutes ces superstitions.

Je disais donc que cette première école naquit du refus de la faculté de médecine de l'université de Maryland d'accueuillir favorablement les demandes maintes fois réitérées des docteurs Hayden et Harris: ces hommes, dont l'idéalisme rêvait de vaincre l'empirisme et de tuer le charlatanisme, voulaient que les médecins se spécialisassent en chirurgie dentaire comme ils commençaient à se spécialiser en ophtalmo-oto-rhino-laryngologie. Ce refus fut-il un bien ou un mal? Je ne saurais répondre à cette question d'une façon impartiale. Cependant il me faut constater que le résultat fût de faire de la chirurgie-dentaire non pas une spécialité de la médecine comme elle aurait dû l'être normalement mais une profession indépendante tout au moins en Amérique. Cette branche séparée de l'arbre fut considérée pendant de longues années plutôt comme un métier ou un art que comme science. Peu à peu elle se développa et finit après de nombreuses luttes à être un atout indispensable dans la médecine préventive de même que dans le dépistage et le traitement de certaines maladies. Après un siècle de progrès lent mais constant, aucun médecin oserait aujourd'hui nier la nécessité des soins dentaires.

Le 6 février dernier, à un banquet donné au Cercle Universitaire par la Société médicale de Montréal, le docteur Albert Lesage, entre autres choses disait: "En 1871, s'organisait la première société médicale à Montréal dont le docteur Coderre était élu président." Dès les premières réunions la Société entrepris une campagne pour réclamer un bureau de santé, l'inspection de la viande et du lait, de l'eau potable, la vaccination obligatoire contre la variole, etc. Elle ne cessa de demander qu'elle n'eût gain de cause.

Le docteur Aldis Bernard, dentiste, homme actif, bon politique, comprenant l'importance de l'hygiène fit voter par les membres du conseil municipal l'inspection du lait et de la viande. Il prépara l'opinion publique à la formation d'un bureau de santé, crée en 1875. Québec avait le sien depuis 1833 et Trois-Rivières depuis 1866.

J'ai emprunté ce souvenir au docteur Lesage pour avoir l'occasion de vous présenter cet ancêtre qui, il y a cent ans, commençait à exercer sa profession à Montréal.

Les principaux renseignements sur la vie m'ont été fournis par M. Conrad Archambault, chef des archives municipales. Je suis heureux de le remercier publiquement.

Le docteur Aldis Bernard naquit sur les bords du lac Memphremagog. Enfant, il immigra avec ses parents aux Etats-Unis où, ses études primaires terminées, il étudia la médecine et la chirurgie-dentaire; gradué, il pratiqua une dizaine d'années dans les Etats du sud. En 1840, pour des raisons de santé, il revint au Canada avec son épouse, native du Maryland, morte à Montréal ainsi que son premier enfant, en 1844. De retour au pays, il lui fallut encore gagner son pain quotidien; après bien des hésitations il choisit Niagara comme domicile et exerca son art dans diverses localités du Haut-Canada. A cause de la rareté des patients et de la fatigue des voyages continuels, en 1841, il déménaga à Montréal où il se fixa définitivement au numéro 104, rue Notre-Dame. Montréal, à cette époque pour une population de 40,000 âmes, comptait trois dentistes; D. Logan, M.D., rue Saint-François-Xavier; G. Scripture, rue Craig, près Saint-Urbain, et W. Spooner, M.D., rue Craig près Bleury. L'année suivante (1842) six dentistes sont mentionnés dans le Bottin de Lovell: Aldis Bernard, M.D., 104, rue Notre-Dame; J. B. Nichols, 176, rue Notre-Dame; C. H. Payn, M.D., 106 rue Notre-Dame; Georges Rose, 6, rue Saint-François-Xavier; G. Scripture, 65, rue Craig; W. Spooner, M.D., 111, rue Craig.

En 1844, alors que Montréal était la capitale du bas-Canada le docteur Bernard réussit à faire ajouter une clause au Bill des médecins demandant une loi pour faire de la chirurgie-dentaire une corporation fermée. Son amendement refusé, il devra attendre vingt-cinq ans avant de voir ses ambitions se réaliser. Le 17 septembre 1868, sous sa présidence, se réunirent à Montréal les MM. Brewster, Bazin, Trestler, Leblanc, Webster, Belle, Alloway, Valois, Nichols et Beers de Montréal; McKee de Québec; Lefaivre de Saint-Jean; Dowlin de Sherbrooke; Brodeur de Saint-Hyacinthe. Cette réunion avait pour but d'élaborer un projet de loi qui légaliserait la profession de la chirurgie-dentaire dans la province de Québec.

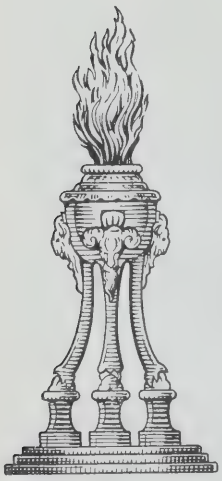
Un bill à cet effet fut présenté à la session de la législature de Québec de 1869 et il fut sanctionné par le lieutenant gouverneur le 5 du mois d'avril sous le nom l'Association des Chirurgiens Dentistes de la Province de Quebec, nom qui fut changé en 1904 en celui de Bureau des chirurgiens-dentistes de la P.Q. pour éviter la confusion avec l'Association dentaire canadienne fondée à Montréal en 1902. Le 20 avril, les membres de la nouvelle association furent convoqués pour l'élection du bureau des gouverneurs et des examinateurs. Aldis Bernard fut choisi président; W. George Beers, secrétaire; J. A. Bazin, trésorier; C. E. F. Trestler, régistraire. Toutes les personnes, sujets britanniques, domiciliées dans le Québec, exerçant la chirurgie-dentaire depuis deux ans et plus, eurent le prévilège de s'enregistrer sans examen comme membres de la nouvelle Association après avoir payé un droit de deux dollars.

En 1858, le docteur Bernard fut élu échevin du quartier Centre qu'il représenta jusqu'en 1873 alors qu'il fût élu maire par acclamation pour succéder à M. F. Cassidy, décédé. En 1874, il fut réélu contre cinq candidats. Sous son administration la ville acheta le parc Mont-Royal, les squares Dominion et Dalhousie, la ferme Logan et loua du gouvernement fédéral l'île Sainte-Hélène, il s'occupa activement de l'hygiène, il fit commencer l'Hôtel de Ville actuel. De plus il fut président du Mechanic's Institute, membre fondateur de la Société protectrice des animaux, président du comité des finances, de la police et de la construction du nouvel Hôtel de Ville, commissaire du port, juge de paix, etc. Il était protestant de religion. En 1851, il se remaria et de ce mariage naquirent cinq fils et deux filles. Il mourrut à Montréal, il y a environ cinquante ans.

2043 rue Saint-Denis,
Montréal.

Centenaire de la Première Ecole Dentaire

par CHARLES A. DURAND



L'Emblème des Fêtes du Centenaire Dentaire

On célébrait à Baltimore les dix-huit, dix-neuf et vingt mars dernier, le centenaire de l'organisation scientifique de la profession dentaire en Amérique. Les fêtes de ce centenaire étaient sous le patronage des sociétés suivantes: "Maryland State Dental Association" et "American Dental Association."

Vous avez reconnu ci-haut l'emblème du congrès tel que conçu par le "Maryland Dental Centenary Celebration Committee." C'est un piédestal à trois branches surmonté de la flamme éternelle.—Il est le symbole de l'éducation, de la science et de l'organisation dentaire,—trépied ou triade sur lequel reposent les efforts du passé, les réalisations du présent et les possibilités futures d'un meilleur service à rendre à l'humanité.—

Si vous aviez assisté à ce congrès, ami lecteur, vous seriez convaincu dès lors, que si les Américains savent très bien faire les choses, ils sont aussi très avancés au point de vue science. On les méconnait quand on les juge d'après leurs touristes passant chez-nous en vitesse avec roulotte louée et deux semaines de vacances.

Dimanche, le dix-sept, ce fut le dîner de l' "American College of Dentists". Le Docteur Dubeau avait le matin parlé des relations dentaires internationales et parla encore au banquet. Le Docteur Walsh, doyen de l'Ecole dentaire de l'Université McGill, fut choisi la veille à Philadelphie comme *Président élu* de l' "American Association of Dental Schools". Nos félicitations à notre bon ami, le Docteur Walsh.

L'ouverture officielle du congrès fut faite lundi matin, sous la présidence du Docteur Lucien Brun, homme fort agréable, d'ascendance française.

La bienvenue aux congressistes fut souhaitée au théâtre Ford par son Excellence le Gouverneur du Maryland, Herbert R. O'Conor, son Honneur le Maire de Baltimore, Howard W. Jackson et par le président de l'Université du Maryland, le Docteur H. C. Byrd.

Le discours principal, "A Century of Science and Education," fut prononcé par le Docteur William Mather Lewis, président du Collège Lafayette. Son travail, contenait des grandes vérités de la dentisterie. Plus de quatre mille personnes l'applaudirent.

"En résumé," dit-il, "nos dents se carient à cause de notre manière de vivre et de nous alimenter.—Notre bouche est devenue trop petite, nos dents irrégulières, par le mauvais choix de nos aliments et le manque de travail de nos mâchoires."

Nous devons donc, à l'exemple de Hayden et de Harris, être des soldats et continuer la lutte car il reste beaucoup à faire. La dentisterie de restauration du passé doit se changer à l'avenir en dentisterie de prévention et de conservation. La dentisterie est une science qui doit rendre service à l'humanité; elle ne doit pas rendre service aux dentistes seulement. Ces quelques lignes devraient servir à nous tous de sujet de méditation.

Le Comité d'organisation du Centenaire sous la présidence du Docteur Lucien Brun, donna un grand banquet le mardi soir. Plus de douze cents personnes, remplissant la salle à dîner et les balcons de l'Hôtel Lord Baltimore, écoutèrent avec un silence mêlé de respect les paroles graves du Docteur Eilerts de Haan, de Batavia, capitale des Indes Néerlandaises.

"Qui n'a pas été en Europe en temps de guerre," dit-il, "ne peut pas imaginer ce qui se passe." . . . Parlant de la Hollande, il ajouta: "Nous nous attendons à une guerre

prochaine. . . . Avec ces conditions déplorables nos recherches scientifiques sont paralysées. Qui donc entretiendra les feux de notre science? . . . Nos regards se tournent vers vous, messieurs d'Amérique et c'est à vous plus qu'à tout autres qu'incombe le devoir de travailler dans la paix pour ceux, sur qui la guerre s'acharne."

Les sommités suivantes ont aussi présenté leurs hommages: le Docteur F. M. Dimas-Aruti, délégué officiel de l'Ecole dentaire de l'Université de St-Domingue. (Nous lui fûmes présentés ainsi qu'à son épouse qui collabore étroitement à l'oeuvre de son mari;) le Docteur A. E. Rowlette de Leicester, délégué officiel de Londres. (Nous avons dîné à ses côtés; il nous a parlé en un français impeccable. Il sait aussi l'italien, l'espagnol et l'allemand.) Le Docteur A. E. Rowlette était en Allemagne à un congrès dentaire, lors de la déclaration de la guerre. Le Docteur E. Dubeau, notre Doyen, ancien président de l'Association Dentaire Canadienne dit quelques mots remplis d'humour. Son allocution intéressa tout le monde et il fut applaudit longuement. Puis ce fut le tour du Docteur Jose R. Quiroga, président de l'Association dentaire de Bolivie, suivi des Docteurs Ricardo Salazar, de Lima, Pérou, Manuel E. Moreno, délégué du Chili et D. G. Reineke, de la Havane, Cuba.

Le Docteur H. Merritt félicita le Docteur Brun du grand succès du centenaire. En effet, le Docteur Brun s'est montré excellent organisateur et la réussite du congrès est bel et bien due à son travail ardu, persévérant et intelligent, accompli depuis plus d'un an.

Au programme, une manifestation nous a particulièrement intéressé; nous voulons parler de la pièce "Wilderness", présentée au Théâtre Ford le 18 et le 19, et dédiée à la profession dentaire par Charles Marquis Warren, son auteur. Les acteurs, tous amateurs de Baltimore, ont répété pendant un an pour arriver à la plus grande perfection. On fit passer devant nos yeux avec les costumes de l'époque les Drs. Hayden et Harris, qui ont raconté leurs difficultés et leur triomphe,—difficultés avec les médecins et le peuple d'alors et triomphe par l'établissement de la première école dentaire du monde, à Baltimore, en 1840.

John Greenwood en 1798, dans son bureau à New-York, répara les dentiers de Georges Washington au prix de quinze dollars; il était assisté de son élève Hayden. On vit également le Docteur Horace Wells en 1844, subissant l'anesthésie au protoxyde d'azote et se faisant extraire avec succès,—nous voulons dire sans douleur,—une dent de sagesse, par le Dr. Riggs.

Qu'il nous soit permis de rapporter ici les difficultés qu'eurent les dentistes au milieu du XIXième. siècle, avec la Goodyear Dental Rubber Co. Nous jugeons ces détails très intéressants et peu connus.

La Goodyear Dental Rubber Co. d'alors, propriétaire des brevets de la vulcanisation du caoutchouc dentaire, vendait aux dentistes pour avoir le droit de vulcaniser, une licence de $50.00 par année et en plus une royauté de $2.50 pour chaque pièce de prothèse de 6 dents et plus et de $1.00 pour chaque pièce de moins de 6 dents. C'était très onéreux et la profession dentaire souffrait beaucoup de ce handicap. En 1879, à l'Hôtel Baldwin de San-Francisco, le secrétaire de la Goodyear Josiah Bacon, fut assassiné par un dentiste Elisha Baker, qui ne pouvait pas payer cette injuste contribution. Après un procès retentissant, la Cour Supérieure des Etats-Unis supprima cette royauté et débarrassa d'une grosse entrave notre profession.

Plusieurs autres scènes non moins intéressantes et typiques nous furent également interprétéees. Et le tout finit par "March On", — morceau très bien exécuté, qui nous enthousiasma tous.

Mardi matin, le vingt mars, le Docteur Dubeau, le Docteur P. E. Poitras conservateur de notre musée dentaire, accompagnés de l'auteur de cet article, allèrent visiter l'Hôpital Johns Hopkins de Baltimore et l'Ecole dentaire connue sous le nom de "Baltimore College of Dental Surgery." — En même temps, nous voulions saluer le Docteur Robinson, doyen de l'Ecole. Le Docteur Dorsay, chef du service de la

chirurgie buccale, fut notre cicerone à travers les différents départements. Nous avons surtout remarqué que tout se fait avec coordination, ordre et système.

On attache une très grande importance à l'examen de la bouche et au diagnostic; le département de la radiographie, très élaboré le prouve. On vient d'enricher l'école d'une aile nouvelle destinée à la radiographie et à la chirurgie.

"Tout est très moderne," nous dit le Docteur Dorsay, "afin que nos élèves travaillent avec goût, aiment leur école et leur profession."

L'organisation d'une école dentaire requiert des fonds; les Américains ayant ce facteur important, savent s'en servir à bon escient pour la sauvegarde et l'avancement des sciences.

Dans le département de l'orthodontie, on ne s'occupe que d'une vingtaine de cas par année, mais les traitements se font avec une minutie extrême; on n'omet aucun détail. On traite ces patients dans le but exclusif d'étude et d'expérimentation pour le plus grand profit de l'élève en particulier et de l'art dentaire en général.

L'école a son département spécial de pathologie buccale. On s'occupe beaucoup de traiter la pyorrhée ou paradontose. La dentisterie préventive est fort en honneur à la faculté dentaire de Baltimore. Pour continuer ce programme de prévention et de conservation, vingt petites chaises y ont été installées,—département spécial pour enfants de deux à huit ans.

Mercredi matin eut lieu l'imposante parade académique; cent vingt-huit professeurs et trente-huit doyens défilèrent en toges. Quel beau et noble spectacle! N'a-t-on pas le droit d'être fier d'appartenir à la profession dentaire qui compte une si belle élite et un corps enseignant si distingué?

Nous somme convaincus que ces maîtres de l'art dentaire, dont le coeur devait vibrer d'un légitime orgueil, étaient tous très heureux de leur oeuvre. Ne sont-ils pas des créateurs, des hommes d'action, des défenseurs de la santé, ces doyens ou professeurs de quinze, vingt et même trente ans d'expérience dans une profession qui a tout juste cent ans d'existence? Ils donnent à la science le meilleur d'eux-mêmes et la font bénéficier du fruit de leur labeur ardu et de leurs recherches. Nous espérons qu'ils sont partis du théâtre remplis d'enthousiasme et d'une nouvelle ardeur pour continuer leur tâche.

Notre impression personnelle et la leçon qui nous a semblé découler de toutes ces belles fêtes, se résume à ceci: si l'on veut que la dentisterie continue à évoluer, il faut que ces hommes, doyens et professeurs dentaires,—continuent à évoluer dans leur enseignement et qu'ils soient compris et secondés. La routine est condamnable, il faut progresser. La dentisterie du passé fut mécanique, dans l'avenir, il faudra qu'elle soit biologique, c'est-à-dire qu'elle tende davantage à enrayer, à empêcher la carie dentaire. Au vu et au su de tous, notre dentisterie actuelle est un dentisterie de réparations et d'extractions. Si on y réfléchit bien, on est forcé d'admettre que sous le rapport de la prévention des caries dentaires et de la pyorrhée on n'est pas plus avancé qu'au temps de Fauchard.

Des hommes, de grands hommes ont consacré leur temps, dépensé leurs plus belles énergies à bâtir, établir la dentisterie, nous donnant les bases, les principes que nous avons aujourd'hui. C'est à nous de nous servir de ce fondement pour prendre notre essor vers un service dentaire idéal, toujours progressif qui tendrait à arrêter la carie. Ce serait vraiment servir l'humanité.

Ouvrons les bouches de nos enfants et nous verrons que 98% d'entre eux ont des caries dentaires. Chez le peuple 17% des gens seulement se font traiter. Cet état de choses est déplorable. Notre science dentaire est une belle science; mais est-elle suffisamment efficiente et rend-elle tous les services qu'elle pourrait donner à l'humanité et spécialement à notre race?

Notre problème dentaire s'exprime aujourd'hui mathématiquement par l'équation suivante:

Décalcification dentaire = Flore microbienne = Carie dentaire.

La dentisterie idéale doit viser à l'équation suivante:

Bonne calcification = Propreté de la bouche = Dents saines.

La calcification des dents peut se contrôler par la diète, la chose est bel et bien prouvée. La flore microbienne se contrôle aussi par la propreté buccale et les réparations mineures. Ces deux principes sont l'essence des discours des Docteurs M. Lewis et H. Merritt, qui selon notre humble opinion, furent les plus scientifiques et les mieux élaborés de la convention.

Ce congrès nous fit voir que nous sommes à un tournant d'où nous pouvons apercevoir la dentisterie future où tout se résumerait à des consultations, des prophylaxies et des réparations mineures de prévention sans pour cela faire disparaître la dentisterie restaurative.

Ce qui nous manque, c'est l'organisation de nos moyens et la mise en action de nos forces pour prouver au peuple qu'il a besoin de se faire traiter. Aux Etats-Unis, la chose commence à se réaliser et on lit au frontispice d'édifices bâtis à coup de millions: "School of Public Health Education," — "School of Dental Health Education," — "School of Oral Health Education".—Etc., etc.

Peut-être "l'Homme, cet inconnu," deviendra-t-il bientôt "le grand connu" qu'on pourra nourrir selon ses besoins, dût-il en coûter la vie à la dentisterie?

On a fait disparaître du globe la rage, la petite vérole, la diphtérie, etc., etc. Pourquoi ne pourrions-nous pas en faire autant de la carie dentaire?

Bien qu'on ne puisse encore peser les fruits de l'arbre, on voit certainement pousser l'arbuste qui donnera de l'ombrage à la génération future. Le Docteur Dubeau a déjà dit que dans l'Ecole Dentaire de la Montagne, nous aurions un département pour les enfants et les aspirantes-mères. Que ce projet se réalise et ce sera un grand pas de fait vers cette dentisterie d'enrayement et de prévention pour le plus grand bien de notre race.

En résumé, le congrès, avec ses discours, ses banquets, ses conférences, etc., fut magnifiquement réussi et l'une des plus belles manifestations de la science dentaire. Les exhibitions historiques étaient vivement intéressantes; celle du Docteur P. E. Poitras brillait au premier rang. Les conférences du Docteur Ante de Toronto eurent la plus grosse assistance et furent parmi les plus écoutées. Le Docteur Dubeau dans un de ses discours de grande diplomatie, mit en évidence le Canada et fut on ne peut plus goûté des Américains. Pour l'observateur, qui voit bien les choses, le Canada était représenté avec honneur au congrès. Notre pays prit sa large part des succès à ce centenaire important et on peut dire sans orgueil et sans prétention qu'il y brilla.

Banquet "American College of Dentists"

Hôtel Belvédère, Baltimore, Md.

ALLOCUTION DU DR. EUDORE DUBEAU

Monsieur le président
Mesdames et messieurs.

Comme représentant officiel de l'Association Dentaire Canadienne, je vous présente avec plaisir nos voeux les plus sincères.

Les frontières séparant le Canada des Etats-Unis ne sont en somme qu'une ligne imaginaire et si ce n'était pas l'arrêt de quelques minutes aux douanes, qui les remarquerait? En effet, en venant vous visiter nous nous sentons chez nous, chez des amis.

L'American College of Dentists est hautement prisé des dentistes canadiens. Votre

invitation à ces fêtes du centenaire, en plus d'être une preuve d'amitié entre les deux pays, nous honore grandement.

Les deux séances, auxquelles j'ai assisté aujourd'hui, m'ont permis d'écouter des conférenciers dont les travaux étaient remarquables. Le pèlerinage de cet après-midi aux tombes des docteurs Hayden et Harris, à qui la profession doit tant, était un juste tribut de reconnaissance à la mémoire de ces deux grands hommes.

Pour répondre à la demande du Comité du Centenaire, le 11 mars, à Montréal, nous avons eu un dîner où deux cents dentistes assistèrent. Le ministre de la santé, le maire de Montréal, le recteur et le président de l'université de Montréal, le directeur du bureau d'hygiène furent des nôtres. Le but de cette énumération est de vous assurer que tous considèrent notre profession comme un facteur important de l'hygiène. Tous ont voulu par leur présence témoigner leur appréciation aux dentistes, du progrès fait par leur profession depuis un siècle et les encourager à continuer.

Le ministre de la santé fut si intéressé par les conférences entendues sur le passé, le présent et l'avenir de notre profession, qu'il donna une somme de $1500.00 comme aide au prochain congrès du mois de juin prochain à Trois-Rivières. Soyez assurés que nous l'inviterons encore! . .

Je vous remercie de m'avoir donné l'occasion de vous exposer ces faits. Soyez assurés que le succès du Centenaire, tant du côté historique que scientifique, restera gravé pendant de longues années dans notre mémoire.

Conférence faite par le docteur Eudore Dubeau devant les membres de l'"American College of Dentists" dimanche le 17 mars 1940 à l'Hôtel Belvédère de Baltimore, Md. à l'occasion de la "Dental Centenary Celebration"

Monsieur le president,
Messieurs:

Je veux vous remercier au nom de l'Association Dentaire Canadienne de nous avoir invité, nous du Canada, à prendre part à cette grande manifestation de la "Dental Centenary Celebration". Je regrette que notre distingué président, le docteur Stephen A. Moore de London, Ontario, par suite de maladie soit absent. En effet il vous aurait présenté, d'une manière plus agréable et dans un meilleur anglais, le sujet que je dois développer ce matin: Relations dentaires internationnales.

J'ignore si le comité voulait me restreindre à ne parler que des relations américaines et canadiennes ou y ajouter les relations européennes: sujet glissant et bien compliqué! . . . pour combien de temps encore? qui répondrait à cette question étant donné l'imbroglio actuel.

Dans le journal de l'American College of Dentists, décembre 1939, nous lisons: "La dentisterie actuelle, comme profession autonome, est exclusivement une réalisation américaine, fait reconnu du monde entier". C'est ce que les canadiens, les français et les anglais pensent de la profession dentaire américaine. Depuis l'obtention de nos chartes dentaires, la province d'Ontario en 1868, la province de Québec en 1869, nous avons suivi votre évolution et nos cinq écoles, toutes affiliées à l'American Association of Dental Schools, enseignent les mêmes cours que vos universités. Cependant les cours de la faculté dont je suis le fondateur et le doyen, se donnent exclusivement en français et depuis 1933, nous exigeons de nos élèves, comme immatriculation, le dégré de B.A. Nos élèves, ayant tous une connaissance suffisante de l'anglais, complètent leur éducation en lisant vos manuels dans le texte, mais nos deux universités françaises, l'une à Québec et l'autre à Montréal sont une nécessité: elles doivent donner l'instruction à une population de trois millions et demi de canadiens-français dans le Québec et un million et demi de franco-américains dans les états de la Nouvelle-

Angleterre. Un grand nombre de ces américains sont heureux de venir chez nous étudier la dentisterie, la médecine, le droit, etc. Un étranger visitant l'Europe reconnaît facilement la dentisterie comme un science plus américaine qu'européenne. Personnellement, depuis 1900, comme membre de la Fédération Dentaire Internationale, fondée à Paris en cette année là, j'ai assisté à de nombreux congrès dentaires dans différents pays et j'ai constaté que les dentistes ayant le plus de succès étaient des américains.

C'est donc pourquoi tant de jeunes dentistes européens viennent dans les écoles américaines chercher un nouveau D.D.S. Notre école, par son affiliation à l'American Dental Schools et un enseignement identique au vôtre, a donné, dans ces dernières années, soixante et cinq dégrés (D.D.S.) à des dentistes européens ayant une connaissance du français mais ignorant l'anglais.

Dans cet article du Journal of American College of Dentists cité plus haut nous lisons la phrase suivante: "Ceci étant vrai (que la dentisterie est une réalisation américaine), il est surprenant de rencontrer des nôtres inquiets et mécontents de leur loi et de leur prestige vis à vis les autres professions ou d'entendre dire souvent que "les dentistes en tant que groupe montrent un ensemble d'infériorité".

Assez souvent, au Canada, j'ai, moi-même, entendu des dentistes formuler ces mêmes critiques. Je les divise en deux groupes; les pessimistes qui nuisent à leur profession par une critique injuste et ceux qui ne suivent jamais de réunion dentaire et se désintéressent ainsi de leur profession. Sans aucun doute, nous avons, pendant longtemps, eu à souffrir d'un manque d'instruction ou de l'empirisme de certains de nos aînés. L'indifférence de la profession médicale à l'égard de la première école dentaire, dont le centenaire est célébré aujourd'hui, en est une preuve, mais nous savons tous qu'actuellement la profession dentaire des Etats-Unis travaille de concert avec la profession médicale. Il en est de même au Canada. Maintenant les dentistes sont partout considérés les égaux des médecins.

Il me semble, messieurs, avoir prouvé suffisamment que les "relations internationales" entre le Canada et les Etats-Unis sont aussi étroites que possible; que les deux pays ont un but commun: prévenir les maladies buccales en organisant des associations de recherches; que les dirigeants de nos associations respectives unissent leurs efforts pour éduquer le public.

Maintenant parlons des relations internationales entre les dentistes américains, européens et les autres. Si vous me demandez ce qui a été fait et ce qui peut être fait pour améliorer les services rendus au public en général, je répondrai: La Fédération Dentaire Internationale, fondée en 1900, comme je l'ai déjà dit, et dont le président actuel est le docteur W. G. H. Logan de Chicago, a fait un bon travail dans ce sens, en créant un comité composé de représentants de tous les pays dont le nombre varie de un à cinq.

Les membres de ce comité sont repartis entre chaque pays comme suit:

Argentine	2	France	5	Pologne	2
Australie	2	Grèce	1	Portugal	1
Belgique	2	Allemagne	5	Russie	1
Brésil	1	Holland	2	Espagne	2
Canada	2	Italie	5	Suisse	2
Chili	1	Japon	3	Suède	1
Colombie	1	Luxembourg	1	Tchécoslovaquie	1
Cuba	1	Mexique	1	Etats-Unis	5
Danemark	1	Nouvelle Zélande	1	Uruguay	1
Angleterre	5	Norvège	1	Irlande	1
Finlande	1	Pérou	1		

Partout la profession médicale a créé des difficultés. Il serait plus juste de dire un groupe de médecins ignorant la science dentaire et ne pouvant faire leur vie, faute de

patients, ont engagé et encore engagent des techniciens comme assistants qui ruinent la profession en retardant son développement.

En certains pays, le parlement ayant toujours compté un plus grand nombre de médecins députés que de dentistes, il devenait facile d'exiger des dentistes le titre de médecin pour pratiquer l'art de guérir les dents. En France le Parlement fit étudier la question par l'Académie de médecine qui, il y a quelques années, par un vote de vingt-neuf contre 10, décida que les deux professions devraient continuer d'exister indépendamment l'une de l'autre. L'an dernier un nouveau projet de loi fut présenté pour fusionner les deux professions. Heureusement la guerre fit suspendre la lutte entre les médecins et les dentistes pour reprendre, sans doute, après la signature de la paix.

Puissent les dentistes américains pratiquant dans toutes les parties du monde les aider dans leur combat et incidemment protéger le public ayant besoin de bons soins dentaires.

Je pense et suis assuré qu'après la guerre la Fédération Dentaire Internationale montrera les fruits de son travail et recevra l'aide, forte et unanime, de la profession dentaire américaine.

Le Congrès

Le docteur A. L'Archevêque vient de faire parvenir à la rédaction un programme préliminaire du congrès de juin prochain.

Comme on pourra le constater les organisateurs n'ont rien négligé pour que ces courtes assises constituent pour les participants un véritable régal scientifique, social et sportif.

On a su y mêler l'utile à l'agréable de sorte que chacun pourra y trouver de quoi satisfaire ses goûts particuliers.

En lisant ce programme sommaire on pourra constater que les dames n'ont pas été oubliées. Ceux de nos confrères qui désirent faire le voyage en compagnie de leur femme n'auraient donc pas à craindre que leur moitié s'ennuie pendant qu'eux s'occuperont de problèmes purement dentaires.

Programme préliminaire

Vendredi 7 juin:

A.M.	8½	hres à	9½	Enregistrement
		"	9½	Cliniques sur tables
		"	11½	Overture officielle
		"	12½	Lunch
P.M.	2	"	4	Projections
	4	"	5	Conférences suivies du thé au Club de Golf

où il y aura en même temps thé-bridge offert aux dames par le Club de Golf. Pour le public il y aura conférences le matin dans les écoles à 9 hres, conférence à la radio à 1½ hre et aussi conférence le soir.

Samedi le 8 juin:

A.M.	9 hres à 11		Conférences et cliniques.
	12 "		Lunch.
P.M.	2 "		Départ en autobus pour Shawinigan et Grand'-Mère. Cette excursion est offerte aux congressistes et à leurs épouses par la compagnie Shawinigan.
	5 hres		Le thé sera offert aux excursionnistes au pied des Chutes pendant qu'on ouvrira les digues.
	8 hres		Grand banquet final.

Les détails de ce programme seront donnés plus tard.

Milford Sound, New Zealand, with Lofty Mitre Peak in centre background — New Zealand Trade Commission.

Courtesy Saturday Night.

"A profession is an occupation for which the necessary preliminary training is intellectual in character, involving knowledge, and to some extent learning, as distinguished from mere skill. It is an occupation which is pursued largely for others and not merely for oneself. It is an occupation in which the amount of financial return is not the accepted measure of success."—Justice Louis D. Brandeis, U.S.A.

"As men and women increase in refinement, they want fewer things and they want better things. The cheap article, I will admit, ministers to a certain grade of intellect; but if the man grows, there will come a time when, instead of a great many cheap and shoddy things, he will want a few good things. He will want things that symbolize solidity, truth, genuineness and beauty."—Elbert Hubbard.

CAPTAIN J. P. LANTIER, D.D.S.

Chief of Operative Dentistry Department, University of Montreal.
At present in Europe with the Canadian Dental Corps.

The Journal
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In Retrospection

by PAUL R. STILLMAN, D.D.S., Longwood, Florida.

INASMUCH as the problem of full denture prosthesis was the original purpose of dentistry, during the infantile years of its existence, a review of that subject, from the time when the term "dentistry" emerged, until the present, may be profitable. Artisans became dentists after they specialized in art by adapting their knowledge to a new idea; and a new occupation was born. An artisan is still understood to be "a superior mechanic," whose art is dependent upon manual skill; all "art" being correctly understood as "something to be done." The artisans of dentistry possessed an education suitable for the purpose of the scope of their interests.

The artisans' indenture system of education was adopted into dentistry. It was a traditional development, characteristic of all artisans, as the means to perpetuate the knowledges they possessed, identified by them as "bench-work." The occupation of dentistry was then open to all who could *do* "the work," as it was to all those who originated the idea; but dentistry, the occupation, was ideologically restricted to work related to teeth.

Some graduate physicians were attracted to dentistry, as an occupation personally preferable to medicine. They possessed a different perspective of dentistry than the artisan group. Medicine had completely emerged from the characteristics of a trade. Medical education had adopted the scholastic principle of education. It possessed colleges whose graduates were physicians. The physician-dentists were obliged to obtain their knowledge of dentistry under its indenture system of education. This was to physicians an intellectual indignity. Their ideology produced an inferiority complex upon the artisan-dentist group. It was the physician-dentists' culture which was most admired and they easily assumed leadership in dentistry because of their recognized superior education.

Dentistry Is A Profession

When a valid idea is formulated, the formula may be variously interpreted, provided the formula produces interest. The formula, "Dentistry is a profession," doubtless originated within the physician-dentist group, but all dentists became interested, and the force of the formula was immediately felt. Certain physicians had become recognized as dentists—and these had a valid claim to recognition as "professional" men. The artisan-dentists accepted the formula as a personal compliment, interpreting it as "dentistry is *also* a profession," themselves included.

The term "profession" refers to an entire group, and directly to its *education,* rather than to an individual. A profession is "an *occupation* that 'properly' involves

a liberal education or its equivalent." Scholastic education was recognized as proceeding from a school—and dentistry possessed no school. If dentists aspired to be "professional" the necessity of organizing a dental institution of learning, and to establish an educational system similar to medicine's became obvious. That idea resulted in the Baltimore College of Dental Surgery, which was established in 1840.

The indenture system, visualized objects to be made. The new dental college curriculum required scientific *subjects,* "something to be *known*" in contra-distinction to "something to be done." These were created and provided with names. The names selected to identify the dental subjects were, "Operative Dentistry" and "Mechanical Dentistry." These terms identify the dentists' ideology, in contrast to that of the physicians; and this difference is observable today. No mind can meditate upon a *subject* while thought concentrates upon making an *object.*

The term "prosthesis" presents a subject, and a subject is always capable of definition. That term lay dormant in medical nomenclature when the term "mechanical dentistry" found place in the new dental college curriculum. However, "prosthesis," though recognized, has found no place in the healing art.

No incongruity was obvious when the term "mechanical dentistry" was adopted to represent a subject. The transition of dentistry, from a trade to a profession, has been a very slow process and its pre-scholastic ideology is still identifiable at this present time; but can we dentists recognize it?

D.D.S.

A revolutionist is always a radical and the principles for which he fights always meet with opposition. When his ideas are once established, opposition ceases. The physician-dentist had a clear title to "Doctor" and that title was envied by his less cultured colleagues. Consequently all artisan dentists began to call each other "Doctor" (by the authority of personal brevet) as soon as the formula "Dentistry is a profession" became popular, and there was no opposition. It was a pre-scholastic fad, very pleasing to the artisan-dentist, who thought that dentistry had been promoted to an equality with the profession of medicine. Eventually the question arose, "What *kind* of a doctor am I?" The answer was, "I'm a surgeon." That idea was equally valid as was the premise upon which it was based. An ideological camel's head had penetrated into the Arabs' tent.

The idea of "Doctor of Dental Surgery" existed prior to the college. Its popularity developed the force of a hurricane. When the storm abated D.D.S. had become a scholastic degree, identifying a scholastically educated dentist. In logic, a premise is far more important than a conclusion, and a false premise is fatal to reason. Wishful thinking is illogical.

"Surgeons operate." The dentist's front room of his "office" was renamed "operating room;" soon afterward his "shop" became a "laboratory." The term "operative dentistry" was adopted to represent a subject for the college curriculum. That term, together with "mechanical dentistry" identified dental knowledge. Terms, referring to objects, represented dental subjects: an ideological tangle resulted.

Dentistry Related to Medicine

The new conception of dental education was limited to the experiences of its founders; influencing their ideals; e.g., their conception of what dentistry should one day become. They possessed both a medical education and also a dental education, as these subjects then existed. Their immediate occupation was dentistry. Their

plan was to make available for all dentists the educational advantages which they had personally obtained. Thus were medical-science subjects, such as anatomy, etc., given a place in the proposed dental college curriculum.

The attempt to orient the medical subjects with dental ideology produced confusion; "the professor's" explanation was not comprehensible. The hypothesis that dentistry was related to medicine had become a conviction which apparently time alone could solve. The medical-science subjects were designated as "theory" and the misnamed dental subjects were "shoved up" with an explanation which did not explain. Without reference to "theory," it was seriously stated that "dentistry is practical." Thus was "theory" successfully stalemated by confusing the issue. Sophistry clouds thought.

The adoption of medical terms by the artisan-dentists, such as the terms "doctor" and "surgery," are minor examples of malappropriation. To adopt pre-empted terms and ignore their accepted definitions confuses thought. The term "dental clinic" is another example. The so-called classical languages, Latin and Greek, have provided the root words for medical terminology. With the exception of colloquial terms in common usage, early scholastic dental terms are largely medical terms. The idea became popular that the knowledges of dentistry, which had long been carefully guarded secrets of the trade, should be shared by all dentists in conformity with the interpretation of the formula.

"Clinic"

In medical terminology "clinic" represented "a means for teaching medicine and surgery, practically, at the *bedside* or in the presence of patients, as in a hospital or dispensary."

The dentists adopted the term "clinic" with a limited understanding of its essential meaning. In Greek a clinic is *a bed*. There were no beds in dentistry. The terms "chair-clinic" and "table-clinic" still appear upon the programs of dental conventions and their meanings are clear to dentists of this generation, but these terms do not identify dentists as possessing "a liberal education," else dental scholastic culture would delete them.

Prosthesis

The term "prosthesis," dental prosthesis, correctly identified the first accepted name for a subject dentistry ever possessed. The knowledges of "mechanical dentistry," as these then existed, were transferred and included under this term. The principle which the definition of "prosthesis" contained was less impressive to dental educators than its euphony. The term "mechanical dentistry" was finally suppressed and "dental prosthesis" was substituted. Had the *principle* of prosthesis developed interest in dental educational circles, the appropriateness of the term "operative dentistry" would have also been questioned, for the art principle of prosthesis exists in that term also. Traditional thought would not permit the assignation of another reference to cherished objects. "Mechanical dentistry," the term, preserved the ideology of artisans—"superior mechanics;" that idea is no longer popular in dentistry. Physicians were never mechanics. Dentists cherished the idea, "I'm a surgeon," but that idea was never carried to his laboratory as this actual "mechanical hand-work" was done in a dentist's laboratory.

The fact that "surgeons operate" is a valid idea, but such "operations" are never undertaken in a laboratory; nor are surgeons popularly understood to be "mechanics." At last the term "mechanical dentistry" was painlessly abandoned, regardless of the fact that our progenitors believed that to be designated

as "a good mechanic" was a pleasing compliment.

Humpty Dumpty's ideology regarding the meaning of words, as revealed in "Alice in Wonderland," is analogous to certain dental usage. When Alice protested that the word, "glory" did not refer to "a nice knock-down argument," Humpty replied, "When *I* use a word, it means just what I choose it to mean—neither more nor less." "The question is," Alice replied, "whether you *can* make words mean so many different things." "The question *is,*" replied Humpty, "which is to be *master*—that's all." Alice could not understand Humpty any more than a physician can understand a dentist. All words are dependent upon accepted definitions, else they cannot convey thought.

Dentists have pondered over, "What causes dental caries," for more than fifty years. Possibly the answer lies cryptically hidden in the definition of disease. Disease is related to life under the principle of physiological action. The definition of disease reads, "Disturbed or abnormal physiological action in the living organism." A human organism is the material of the healing art; only an organism can "heal." The term "art" refers to work, as, e.g. a "work of art." With the exception of "healing art," all work is accomplished by him who works and a force is contributed by the worker to the material of some particular "art." The force of the healing art is *life,* resident in the material of that art. The traditional material of prosthetic dentistry is purchasable inert matter, as all dentists comprehend. The purpose of dental art is prosthesis, and the inert material is fabricated into an inert object—a "filling," an "inlay" or a "full" or partial denture, etc. the purpose being to supply a lost part of a human organism with an artificial part. That is prosthesis; the purpose and *not* the object made. It is not "surgery," nor is it "healing."

Physiology

The term "physiological action" refers to the entire organism, and teeth are included in that idea. The knowledge of physiological action of a human organism, as that term relates to function, is exclusively the product of diligent protracted investigation by physicians. In medicine, a science-subject now called physiology, exists. *Its theme is function,* a colloquial synonym referring to the physiological action of an organism. Similarly, the theme of anatomy is *structure.* For the convenience of study, the *structure* of an organism is identical with that of a cadaver. The fact that no life exists in a cadaver made the study of anatomy possible. A comprehension of structure is as prerequisite to the understanding of function, as the recognition of an alphabet and its development into words, for the purposes of literature, is necessary for elemental scholastic education.

The "A. B. ab's" of dental science exists as dental anatomy. Physiology is animated anatomy. Both an organism and a cadaver can be comprehended as an *object* but when thought adopts the idea of physiological action, a biological subject is introduced. That subject is predicated from the perspective of art upon the recognition of life in material. It is the difficult acceptance of that idea which is obstructing biological thought in dentistry.

Dental physiology will one day exist—and as soon as the idea "teeth function" as an integral part of an organism is accepted. Dental physiology is *in embryo.* No dentist dares to defend as a premise the hypothesis, *teeth do not function,* for the fact that teeth *do* already exists. The early dentists recognized, but very indistinctly, that an edentulous person had lost an important *anatomical* part. The pur-

pose was to make an artificial part to augment the loss. Physicians would have recognized the purpose as "prosthesis" and the object made as an *artificial dental* organ. An organ *does* function. Thus the art of dentistry found its birth.

In the terminology of physiology and biology, an organ is defined as, "Any part of an organism, plant or animal, performing some definite function; as the digestive organs." Here, a dental organ is understood, thanks to medicine's physiology under the topic of digestion, as that part of an organism capable of mastication. The term "mastication" refers directly to food and only indirectly to teeth; i.e., that organ which performs the function of mastication. The basic interest of all dental art is *teeth*. Digestion of food begins in the mouth; mastication refers to chewing; science interest includes the entire organism, but the art interest of dentistry is limited to the dental organ. It is here that the disease, dental caries, has been recognized as "a cavity" in a tooth; that identifies an objective symptom, to be understood as "serving to point to something else"—and that something else *is* disease. (See definition of disease already quoted, also the definition of "symptom".)

The idea of "a dental organ" can emerge, if full dentures can be comprehended as an artificial dental organ. Dental prosthesis is a unique art which has groped its way by the means of manual ingenuity and in the absence of applicable and pertinent science knowledge. The ideological stress of prosthodontists has been related to the aesthetics of their problem, rather than upon the functional service to the patient. When Dental Anatomy emerged, thought was dominated by the idea of *structural form,* according to the theme of anatomy. This perspective of form is undoubtedly essential to the problem of making artificial teeth; but only in the sense that the recognition of each letter is essential for the making of words. It is a knowledge of functional form, however, which still remains an elusive problem. Anatomy can provide no knowledge of function. When dental physiology is comprehensively available, a dental renaissance will be inaugurated which will transform the entire art of dentistry—both biological dentistry and technological dentistry; then empiricism in practice will gradually become of historical interest only.

Science is "non-sectarian." It is free knowledge for whoever can apply it. Art, on the other hand, adopts the knowledges of science for its own particular advancement.

Professional "specialization" applies only to art. It is the use to which dentists apply their knowledge to the problem of their art, which will provide the means for its recognition by our intellectuals. It is a traditional idea in dentistry that adequate knowledge exists for the needs of the occupation of dentistry. This is particularly true regarding dentistry's prosthetic art. Biological dentistry exists as an infantile art, wholly empirical as yet, regardless of the knowledge it possesses. When the fact is recognized that all science is the creation of human intelligence, applied to problems by "diligent protracted investigation," the magnitude of that which is yet unknown, becomes devastating. The time has arrived for dentists to be impressed by what they *do not* know, rather than by what is already known. Wisdom comes to mankind when personal ignorance is recognized. Artisan ideology cannot accept that idea. They think someone *knows.* Hence the interest in technological "clinics".

No one ever mistook a physician for an artisan; such an idea is irreconcilable in reason. A physician is dependent upon an artisan when a need for a prosthetic appliance is obvious. He supplies that

need by delegating the making of the appliance to an artisan. It was artisans' skill which created dentistry. The dentists developed the idea, which is now comprehended as dental prosthesis, but dental thought could not accept the principle of prosthesis so long as the term "mechanical dentistry" remained in its terminology. The idea which prosthesis at first represented applied only as "mechanical dentistry" and that misnamed subject died. That term identified a knowledge but not a principle. The principle of prosthesis is now recognized to also exist in operative dentistry — and that term, too, will one day be suppressed.

The art of dental prosthesis is technological; that reasoning is inescapable. This art is dependent upon inert material, the fabrication of which identifies technology, which is an art. No phase of prosthesis can be comprehended as "healing art," despite the fact that whenever the object made meets the requirements of an organism's function—and such examples occur very frequently—then an influence upon an organisms health becomes apparent. Skill, plus innate ingenuity, dominates dental prosthesis *as it exists today.* All dentists, regardless of their personal interests in the art of dentistry, whether it is biological or technological, can now give acclaim to this art. It is a creation worthy of *any* occupation. Inasmuch as dentistry now possesses it, and the healing art does not, it is a logical conclusion, that so far as the art of prosthesis is concerned, *dentistry is superior to medicine.* Because of that fact no dentist should permit an inferiority complex to exist in this relation.

The visible symptoms of oral disease have been recognized and very elaborately classified by dental pathologists. The result of these studies is a symptomatology which does not reach the full meaning of pathology. Dental physiology will make dental pathology comprehensible. It will also provide a means to rationalize dental hygiene. Sanitation is an art. Its field of interest is external to the site of life. Health is internal to the organism and identifies physical condition. Hygiene is "the science of health;" not so "dental hygiene."

Sometimes letting another person do you a favour is a better way of making him like you than doing the favour for him. He feels, after he has done something nice for you, that you are under obligation to him; he is your benefactor. Providing you show your gratitude, he will have a kindly feeling for you henceforward. But if he feels that he is under obligation to you, he may wish to avoid you in order not to be reminded of the obligation.

Benjamin Franklin said, "He that hath once done you a kindness will be more ready to do you another than he whom you yourself have obliged."—Donald A. Laird in "How to Use Psychology in Business."

There is a great difference between Pleasure and Happiness. Pleasure is a thing of the moment which often perishes in the using. You grasp it after months or years of feverish search, only to find that the pleasure upon which you have staked your all turns to dust and ashes at your touch.

Pleasure is illusive, transitory, unsatisfying. Generally, it creates a mad appetite for more, failing to satisfy the craving it has awakened. Seldom does the quest of pleasure lead to the Blue Bird of Happiness. Happiness is not in getting, but in giving, not in self-indulgence, but in self-mastery. — Henry Knight Miller, M.A., D.Sc., in "Psychology."

Medico-Dental Unity for Dental Progress *

by BRIGADIER GENERAL LEIGH C. FAIRBANK, Washington, D.C.

THE evolution of military dentistry in the United States Army holds the attention of the entire profession in America today. Under our present program of expansion we are experiencing a development which marks a very definite change in its relation with medicine.

It is said frequently that our Dental Corps had to earn its spurs, and that military dentistry had to establish itself as an essential health service, but one cannot deny the fact that achievements and experience come with maturing characteristics. Dental progress in the last twenty-five years has touched every dental group. The achievements in the first World War, and the advancement in research and clinical dentistry since that historic period, represent the great golden era of dental progress. Military dentistry in the States has demonstrated satisfactory signs of maturity and the recognition it now enjoys in the Army comes as a result of the quality of its service and indications of continual progress and usefulness.

Unlike civil practice, military dentistry is closely allied with medicine. Here, in the organization, administration, and professional relations, all health services are drawn together as a group. There is a large administrative overhead and control. Every aspect of our organization is included — hospitals, clinics, dispensaries, and all medical components of every type of tactical military unit. The great procurement and supply agencies, the educational units, and planning and training for all the health services — these have been developed, controlled and managed by representatives of medicine since the early days of our Army. A policy, based upon experiences of the past and expectations for the future was developed.

Just as in any family or business organization, until maturing trends are evolved, junior members are not accorded much of a voice in control or management. In a medical service, responsible for the health of armies, changes are not made until signs of growth, indications of development, and assurances of a maturing concept of responsibility appear.

The results of dentistry's achievements during the first World War evidenced signs of growth. Progress during the 20's indicated a splendid development for military dentistry, and it kept abreast of advancement in all phases of dentistry. Clinical progress, results of research and the general character of military dentistry improved. The 30's gave evidence of a newer concept. An inter-relation and an inter-dependence of dentistry and medicine indicated a gradual maturing and evolution of dentistry as an essential health service. Past experiences became an interesting record; a new and convincing concept became a reality. Impending change seemed logical and desirable. Surely dentistry would be brought into a deserving and helpful relation among other health services. An integration of the two great professions, helpful and useful to both, in their efforts to solve serious problems of health, would result. After all, these health agencies had grown and developed to meet human needs. In background and in the common problems and purposes, there is the identical goal — the maintenance of health for our Army.

* Presented before the Toronto Academy of Dentistry, March 6, 1940.

New Policy for Dentistry

The determination for a new policy for the dental service of the Army came as a recognition of dentistry by medicine. The changes which have come, the progress which has been made, and the advancement which we anticipate in the future, are definitely and purposely the result of this new policy for dentistry as an essential part of military medicine.

Changes make some individuals suspicious! What all these changes might mean for military dentistry made a few souls rather skeptical. Some dentists have encouraged an inferiority complex for their profession in its relation with medicine. Perhaps it is the best they could do! But for other dentists there had to come a time when they would be so proud of their profession, so devoted to the cause of dental health, and so convinced of its importance in relation to general body health that they would correlate advanced scientific knowledge in related fields into the problems of dental and general health and reveal its significance.

Until we make it so, our mission as a health service never is convincing! Until we prove it, our usefulness never is determined! When I see our research laboratories using scientific laboratory methods in studies and experiments which establish proof of existing relations between altered physiological processes and the incidence of dental caries and periodontoclasia, I see signs of scientific development. When I learn of our dental officers working with the otolaryngologists on some related problem, I see signs of inter-relation. When I behold an oral surgeon assisting a surgeon in the removal of a carcinoma of the lip, I have proof positive of a growing confidence in dentistry. The very pressure of the growing body of knowledge is giving force to dental progress today, and as it grows our keen, alert and determined dental officers are building a new place for dentistry as they make these new concepts of dentistry effective in our Medical Department. The force behind this advancement is the newer educational policy and the determination to make military dentistry more effective by applying the newer knowledge in clinical practice. This is a tremendous task, for scientific progress in the basic sciences, applied to medicine and dentistry, opens enormous fields of exploration.

Dentistry a Health Service

Daily association with the Medical Corps in related health problems, contact with the Association of Dental Schools, and frequent conferences with the Council on Dental Education, give an insight into many of the problems of today and a vision of the needs for tomorrow. There is a great and growing demand for dentistry as a health service. It must become more useful to meet human needs today. Too long have we been treating the effects of disease, and we have given too little attention to the elimination of the causes of disease. Our efforts must become effective beyond the restorative efforts which largely limit our service. Not only the primary diseases, but also the resulting infections which influence general health must have our serious consideration if we are to be an effective health agency. Our dental service in the Army must make every effort to progress in these wider avenues, for the opportunities for growth and integration with medicine encourage this effort. It is equally a responsibility of the entire dental profession. How we must change the basic structure of dentistry to achieve this goal is of concern to all.

Changing Concept

In these days we have become accustomed to change. Whether it be in gov-

ernment, society, business, health, or disease—even in life itself—change is the most constant element we meet. The growing body of knowledge brings change. It forces new concepts as new meaning is given to the processes of life, the influence of environment, and the factors of disease. Our profession is sensible of this influence. It is rapidly recognizing remote factors and slowly accepting newer concepts revealed through contemporary developments in the scientific fields significant to general health. This is manifest through the same type of leaders who have always inspired dentistry toward greater accomplishments. The interesting fact is that this trend of today is largely initiated by brilliant men in clinical practice or in the laboratory, men who are motivated by the same desires and the same altruistic purposes which animated our leaders in the past. It appears that the efforts of an increasing number of men in practice are forcing this changing concept just as earnestly as our good friends in the field of dental education. Study in the field of orthodontics has revealed countless influences in various disturbed physiological processes which alter growth and development of the dental structures. Specialists have toiled for years, seeking the causes of malocclusion. Their endeavours have revealed an intimate relation between dental conditions and general body functions. This work has brought to all of us a keener understanding and a genuine realization that the dental structures are living body tissues, maintained by adequate nutrition and influenced by the same physiological processes which reflect the changes in balance and stability in health and disease. This is convincing proof that the great problems of dental caries and periodontoclasia should be studied as general health problems rather than local health disturbances.

Dental Diseases Symptoms of Disturbed Physiology

The study of dental structures, the influence of disease, and the process of repair, disclose some interesting facts. Tooth structure differs from other body tissues in that it does not possess the inherent power of repair. A fractured bone, given reasonable care, will repair the break in its continuity. Ligate a blood vessel and nature will establish a new collateral circulation. Section a nerve and regeneration will take place. Destroy a portion of a tooth and degeneration occurs. We must manifest a recognition of this in our approach to the problems of dental health. We must develop a real understanding of disease, its nature, and its causes. We must recognize associated clinical signs; we must have exact knowledge of the resulting functional and morphological changes; we must evaluate symptoms and clinical and laboratory findings. These are all essential factors in the consideration of manifestations of disease.

It is particularly necessary for us to consider dental lesions in the same way. The essential features in the production of dental lesions are exactly the same as those which produce disease elsewhere in the body. Because of the nature, structure, and environment of the teeth, diseases affecting them may be considered as signs and symptoms of a disturbed physiology. If we determine to seek the cause of dental disease, we must inquire into the very nature of disease and search deeply into the phenomena of physiological processes and the deviations which bring about tissue and organ disability. There is ample evidence that dental caries is a local manifestation of an imbalanced nutrition. The local exciting cause is acid produced by bacteria in the mouth. Oral secretions reflect the nutritional balance and under optimal conditions control the bacterial flora in the mouth and render

inert their metabolic products. Dental caries is primarily a disease of youth, associated with growth and development. Any factor which tends to lower the reserve of alkali or decrease the normal concentration of basic elements in the blood and tissue fluids creates an imbalance toward the acid side, decreases acid resistance to disease, and increases the liability of the teeth to decay. When growth processes are completed, activities in body structures change. These cycles in life processes are amazing. It is evident that the nutritional balance maintained during the growth period to sustain physiological stability is altered when growth processes are completed, and concentrations of basic elements in the blood and tissue fluids develop an imbalance toward the alkaline side, creating a tendency toward periodontoclasia. Balanced nutrition is exceedingly important in this metabolic process.

Dental Physicians

We have yet to bring into our structure of dental education even a working knowledge of these amazing processes of life so greatly affecting dental health. We have made only a small effort to correlate contemporary knowledge for dentistry and to make it useful in the clinical experience of our profession. We have not assumed a scientific approach to the problems of dental health as dental physicians, which must be our role if we are to meet the growing demands in the great field of prevention today.

The importance of all the basic sciences has greatly increased in the last twenty years. The growing body of knowledge is continually weaving a new fabric. It changes with the introduction of each new thread; it alters the design, and in this new pattern we see significant figures important to dentistry. Among these changes are the new concepts in the field of physiology and the complex surprises in biochemistry. There is an inseparable relation between these two sciences, and the advance in physiology is directly attributable to progress in biochemical knowledge. Biophysics today alters our whole idea as to physiological processes. Colloidal chemistry, chemistry of the hormones, the growth of knowledge concerning nutrition and metabolism, have all contributed to a variety of important factors recognized as influencing the dental structures and the body as a whole. Unquestionably, every phase of clinical medicine and dentistry, and every branch of the medical sciences, are concerned with nutritional factors as causes of disease or as participants in important disease mechanisms. In histology, emphasis is laid on the physiological appearances and their relation to function in contradistinction to a fixed or so-called normal state. The reaction of tissues to various conditions must be distinguished so that we may recognize the variations in structure that fall within physiological limits and the variations which are manifest in the realm of histopathology. All our progress in the treatment of disease and the understanding of pathological processes is influenced by the study of diseased tissue. Linked with progress in this field is the need for a deeper understanding of bacteriology in dentistry. It is imperative that our profession be fundamentally grounded in all these basic sciences if it is to meet the larger demands as a profession. We must develop new principles and new methods of practice in this newer clinical phase of preventive dentistry. The problems of dental health must be viewed as new dental projects reaching deeply into the field of human biology. All the possibilities of dentistry as a great health service depend upon this integration.

Closer Relationship With Medicine

It becomes increasingly evident that our progress toward the new horizon lies

in a closer development with medicine. I sometimes fear that by this frequent statement I have been greatly misunderstood. I am not advocating an M.D. degree for the dentist, but I am maintaining the need for a unity in medical and dental thought, training, and experience, insofar as it may in any manner concern these problems of dental health. This will bring us closer to medicine—a very part of medicine in some respects—but not in a sense that the physician of tomorrow will pose as a dentist or the dentist will consider himself a physician. The dentist of tomorrow must be able to give comprehensive understanding to diagnosis! We must assume with confidence our place in the field of surgery and intelligently meet the demands for successful preventive dentistry. The medical profession is asking for our help: an intelligent and awakened public is demanding our aid. Dentistry must select with care the related basic sciences, and make them a major part of its fundamental structure. In our study, research, and clinical experience, we must work with medicine, with a determined effort to solve these important problems of dental health now before us.

New Specifications For Dentistry

How are we to meet the needs of today and also build into our structure the needed requirements for tomorrow? These new specifications for dentistry call for decided changes. In the Army, in order to meet the needs of today, we have developed a policy for the very best restorative measures. The training of our dentists is easily directed into the necessary concept of integration with medicine. We work as an inter-related and inter-dependent service. Its purpose is to bring this transition only into those avenues which are definitely related to dental problems and their solution. Our policy provides that the mechanics of laboratory processes be carried out by technicians, under the supervision of highly trained dental officers. Our laboratory service has added tremendously to the quality of the whole dental service. Please understand me—the dental officer "dominates" the laboratory service. Our technicians do what they are told to do, by our dentists who know what we want. Our technicians are skilful laboratory men but no technician in the Army is permitted to express an opinion as to professional service or how that service will be executed This is not his function. I believe the whole dental profession can benefit by this example. We are actually delegating to technicians, under the proper control, those essential duties and procedures which can be safely turned over to them. We do not believe in various professional "levels" nor do we recognize professional status for technicians. We put craftsmanship where it belongs. The dental officer represents the professional aspect of dental service. This is similar to accepted procedures in clinical laboratories maintained by medicine.

The real constructive work for a new era for preventive dentistry will come from the research laboratories. The research projects of the Dental Corps are directed toward the solution of the big dental problems. Efforts are directed into the fields of bacteriology, histopathology, and biology. Our studies in immunity, hematology, biochemistry, and nutrition are certain to produce results which will be helpful in future efforts in prevention. Through the agency of our Army Dental School we project the results of research so that they become useful in clinical practice and in the preventive measures for control. Thus dental education is spread over the basic structure which we believe is essential for the more effective measures in the control and prevention of dental disabilities. My greatest dream for preventive dentistry is to set up a program

at the United States Military Academy at West Point, based upon the results of an approved research. When we can maintain a program which will result in the elimination of dental caries in a class of cadets over a period of four years, our project will help the dental profession in the new era of prevention.

It is significant today that the trends toward medical and dental unity assume such a stimulating character that one feels a reality in its fulness and richness. It is significant that these trends come as dentistry enters its second century as a profession. The achievements of the first century of dentistry have brought amazing progress and its recognition as an essential health service. The stimulating signs of a growing unity with medicine are indicative of a new era of progress and service for all health agencies. As dentistry has grown, more and more has it developed under the influence of contemporary knowledge of each decade. Science has brought an ever widening scope and understanding to the special problems in the field of oral health.

Dentistry has been similar to other special fields in that the tendency has been to lose sight of the whole in its attention to the particular categories exemplified in its own sphere. During recent years there has been a slowly coordinated effort by earnest students in both professions to unify medical and dental thought, training, and experience concerning the problems of general and dental health. For medicine, this has been necessary in the light of increasing knowledge, and for dentistry, it has become obvious in the realization that the dental structures are similar to other body structures, and their growth and maintenance are dependent upon the same factors. Today the efforts of dentistry are being coordinated with the results of medical progress and fruitfully applied to the problems of dental health. The relation between medicine and dentistry is one of reciprocal influence, and a transformation is surely being brought about. The results will be a real medical and dental unity, assuring us of amazing dental progress in the years to come.

Conventions

New Brunswick Dental Society, Admiral Beatty Hotel, Saint John, July 8-9, 1940.

American Academy of Periodontology, Cleveland, Ohio, September 5-7, 1940.

American Dental Association, Cleveland, Ohio, September 9-13, 1940.

American Dental Assistants Association, Cleveland, Ohio, September 9-12. Headquarters Cleveland Hotel.
(Lucile S. Hodge, Gen. Sec., 401 Medical Arts Building, Knoxville, Tenn.)

Eastern Ontario Dental Association, Chateau Laurier, Ottawa, October 14-15, 1940.

*A New Operation to Overcome Gagging as an Aid to Denture Construction**

by SAMUEL W. LESLIE, M.D., D.D.S., Toronto, Ontario.

THE gagging reflex presents a daily problem to the dental practitioner. When confronted by gagging during operative work or in the process of taking radiographs, the dentist finds that this temporary gagging can be controlled in a number of ways. The use of tablets containing a small amount of orthoform placed on or allowed to dissolve on the base of the tongue will at times lessen the pharyngeal reflexes. If the patient is instructed to gargle a few times with ice cold water prior to the operation, the reflex will be greatly diminished. With many individuals, if the above procedures have been carried out and gagging still persists, the patient should be instructed to breathe very deeply with the mouth wide open, and this will result in the gagging being greatly lessened. Preoperative medication for the purpose of extracting teeth or other minor surgical operations in the mouth with one of the barbituric acid derivatives is of great value in allaying apprehension and reducing gagging. The application of 10% solution of cocaine hydrochloride to the soft palate, pharynx and fauces of the tonsils is of great help in some cases to reduce the gag reflex.

It is true that the pharyngeal reflexes vary in activity in patients within a rather wide range because of the nervous make up of the individual, hence the psychological attitude of the patient to the operator is of great importance. Proper instructions to the patient and self-assurance on the part of the dentist will in many cases instil greater confidence and thus reduce the fear of the patient which is in many cases an important factor in the production of gagging. Psychotherapy is of great value in treating many of these cases.

From the aetiological viewpoint, it is important to remember that these patients have hypersensitive palates prior to the removal of the teeth. This hypersensitivity is not an organic disturbance per se, but forms a part of the general nervous mechanism of these patients. They are more sensitive in all their bodily reactions, and on careful inquiry it is found that there exist many other associated symptoms of hypersensitivity. Many of these patients have been erroneously classified as neurasthenics or neurotics by dentists who have been unable to help them or by their physicians to whom they have finally appealed but from whom they have received no help.

In the construction of full upper dentures, during the taking of an impression, the dentist has to contend with gagging quite frequently. This, however, is of a temporary nature and in the majority of cases the reflex is easily controlled and disappears after the patient has worn the denture for a short period of time. However, in these patients this gagging persists and the dentists are unable to take a proper impression, and the patients are not able to wear the dentures even after a number of dentures have been remade.

A superficial statistical survey in which a number of dentists were questioned, reveals that the average practitioner encounters a case of this type about once in three years. Because of this comparative infrequency, nothing seems to have been

* Presented at the Academy of Dentistry Winter Clinic, Toronto, Ontario.

suggested to relieve these sufferers, except the reconstruction of the dentures. No attempt has ever been made to really solve the problem, and very little can be found on the subject of gagging in the dental literature. In our experience with five patients of this type it was found that dentures had been reconstructed for them anywhere from three to eight times, without success.

Steps in Denture Construction

It is not our intention of course, to discuss the whole problem of full denture contruction. It is taken for granted that in all cases the taking of a careful impression, a careful check of the bite in all the positions, and proper set up of the teeth had been adhered to, and that proper denture material had been selected. A new method of curing these so called "gaggers" was therefore worked out and used on five patients.

It is important that the dentist realizes that in the process of denture construction he is dealing with living supporting structures which vary in character with different individuals and in this type of patient the tissues are very relaxed. That the success of the full upper denture will depend not only on one step in the process of construction, but on every individual phase of its production.

The first and most important step is, therefore, a careful diagnosis and survey of the type of patient and of the tissues with which he is dealing. Also in the case of this type of patient it is occasionally advisable to retain even a single tooth to aid him in getting accustomed to the denture. The dentist should make a careful survey of the periphery, where it begins and where it ends. The condition of the soft palate should also be noted and a careful survey should be made of the distance relationship between the nose and chin. Noting these facts is important in the field of full denture construction, because the leaders in full denture construction and research workers have developed a principle that all tissues of the mouth which are at all tolerant should be covered by the denture base, thereby giving the denture the maximum of stability and efficiency. The occlusion should also be of such a nature that the bite is neither opened nor closed too much. Adherence to these principles usually results in successful dentures. We thus can see that the shortening of the dentures which is advocated in the treatment of these patients with hypersensitive palates, is not in accord with the best principles of denture construction.

It is to be understood, of course, that one does not propose that this operation, which is about to be described for the relief of gagging, is to be used indiscriminately. Its success depends upon it being used only in indicated cases and after all other methods have failed in controlling the gagging. The operation in itself is not serious or very complicated and the patient who is suffering should therefore not be deprived of this possible remedy.

Rationale of Operation

The rationale of the operation is based upon our observations that this persistent gagging is due to an atonic and relaxed soft palate which is found in this type of neurasthenic patient. The palate being a suspended organ is, therefore, unable to retain its normal relationship between it, the uvula, and the pharyngeal wall. The uvula, in many cases, touches the tongue and the soft palate falls back on the pharyngeal wall. Because of this, a tendency to gagging and nausea is produced and in many cases vomiting results. In other cases where there is too close a bite the posterior portion of the tongue is constantly in contact with the denture itself and gagging results, whereas in the normal bite it is only the anterior half of

the tongue which comes in contact with the palate during rest bite. To overcome this condition of laxness, it was decided to perform an operation which would lead to a shortening and tightening of the soft palate on healing, and which would cure the patients of this persistent gagging, thus permitting them to wear dentures in comfort.

The rationale of the operation depends in the main upon an understanding of the anatomico-physiology of the act of swallowing. Without going into any detail it will suffice, for the purpose of this paper, to point out that the function of the oro-pharynx is considered by us to be that of a sphincter muscle, whose purpose it is to close off the naso-pharynx and larynx and to prevent food from entering the air passages. This is accomplished by the inter-action of a large group of muscles situated in this region. This group of muscles also becomes activated in the process of phonation and these patients with an atonic soft palate usually have a "thick" voice. To overcome the atonicity of this sphincter muscle group, is therefore the purpose of the operation.

Case Reports

To conserve space only two cases will be reported herewith although five cases have been subjected to this operation to date.

Case I.—Mr. I. S. of Ft. William, Ontario, was seen in consultation with his dentist Dr. B. Schaeffer early in 1938. The outstanding points in his history were that for the past few years he had had a number of full upper and lower dentures made and that he was unable to wear them because of gagging. He had consulted numerous dentists and physicians about this affliction but was unable to obtain relief. Finally he consulted a gastroenterologist in Toronto who advised him that nothing could be done for

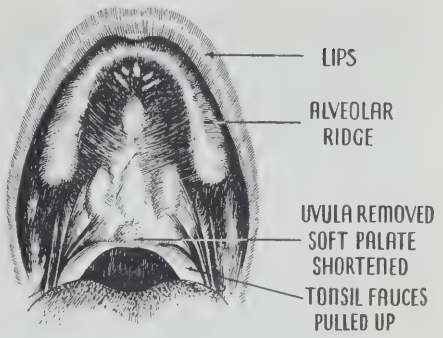


Figure 1

him medically and that his condition was simply a neurosis. This caused the patient to become very greatly depressed mentally and he began to lose weight. His gagging also became so marked that even the sight of a tongue depressor made him "gaggy".

Except for the fact that the patient was high strung and very nervous when he was examined by us, his general physical condition was good. It was decided at this time to perform an operation on his palate which would shorten it some and remove its laxness on healing. The uvula which was also a little longer than normal was also removed. Fig. 1, 2.

This operation was performed under local anaesthesia shortly afterward. While the palate was still healing, a full upper and lower denture was constructed by Dr. B. Schaeffer.

Since the insertion of the dentures, the patient has been able to wear them in comfort without gagging.

Case II.—Mr. F. B. of Chatham, Ontario, was seen by us in consultation with his dentist Dr. H. Mercer of Toronto. The essential points in his history were that he had had a number of full upper dentures constructed but was unable to wear them because of gagging. He had consulted a number of men both in Canada and the United States but was unable to obtain satisfaction. His medical his-

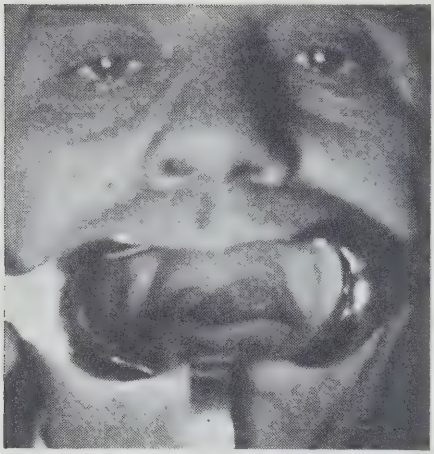


Figure 2

Showing palate after operation in Case I. Patient is holding the tongue depressor himself—no gagging.

tory was essentially negative. His oral examination revealed that he was wearing a partial lower denture. His upper alveolar ridges were exceptionally good and there were good heels in the region of the tuberosity. His soft palate was very lax and atonic and his uvula had a tendency to rest on the tongue and touch the pharynx. It was decided to perform an operation which would result in the removal of his uvula and the shortening and tightening of the soft palate. This operation was performed and on the third day after the operation Dr. Mercer was able to take a full upper and partial lower impression for him without gagging. Two days later the dentures were inserted by Dr. Mercer and the patient left for home without experiencing any gagging.

One of the outstanding features of this case was that gagging was easily produced by the patient only opening the mouth a short distance. Fig. 3.

Conclusion

It is believed that the operation described in this clinic will be of great value in curing a number of sufferers from gagging. Experience with these cases has led us to the conclusion that the dentures should be constructed of vulcanite and not of the new denture bases now in vogue. For the present we cannot give the scientific reason for this except to say that one of the cases did not do so well with dentures made of material other than vulcanite.

Figure 3

Case II with mouth partly open and dentures in place. Prior to operation patient couldn't open mouth wide even to talk—had a "thick" voice.

Until more cases are done one cannot lay down a hard and fast rule as to the amount of tissue to be removed during the operation.

In three of these cases the electric cautery was also used for purposes of producing scars in the region of the posterior palatine canal.

Finally, we hope in the very near future to publish a detailed step by step description of this operation.

398 Bloor St. W.

Practice Management

So Your Practice is Slipping

by L. W. DUNHAM, D.D.S., New York City

Condensed from Oral Hygiene, March, 1940

ONE of the most disturbing discoveries that a dentist can make is to find, after fifteen or twenty years of fairly successful practice, that there are more idle hours in his average day and less income for the year.

At first he may think that "times are hard" and business generally is "bad," that his practice simply reflects the prevailing economic condition of the nation or of his particular section of the country. However, when business picks up and he learns that some of his colleagues are quite busy while his practice has not reached proportionately to the general upswing, he begins to wonder and then —to worry.

If he has kept up with the progress of his profession, he should be at the peak of his ability to render service to his patients. His judgment, tempered by added knowledge and experience, and his skill, developed by almost daily use, should make him of far more value to the public than he was during the earlier years when he was attracting patients.

Why should his practice dwindle just at a time when he needs it most and can give the most to it?

A practice is a living thing. It depends on someone to provide nourishment and care.

When a pet canary starves to death or is caught by the cat, it is pretty definite proof of neglect or carelessness. *And the same thing holds true with a dental practice!*

The same methods that brought the practice to its peak will go far to keep it there.

Most practices started with only a few patients—yet the practices grew. Today most of these practices have several hundred "on the book." And yet they are "slipping."

Surely, if a young fellow just out of school can start from scratch and, without any experience, can build a lucrative practice, it would seem easy for an experienced and skilful dentist, who has worked for hundreds of patients over a period of ten, fifteen, or twenty years, to *revive* a practice that seems to be going downhill.

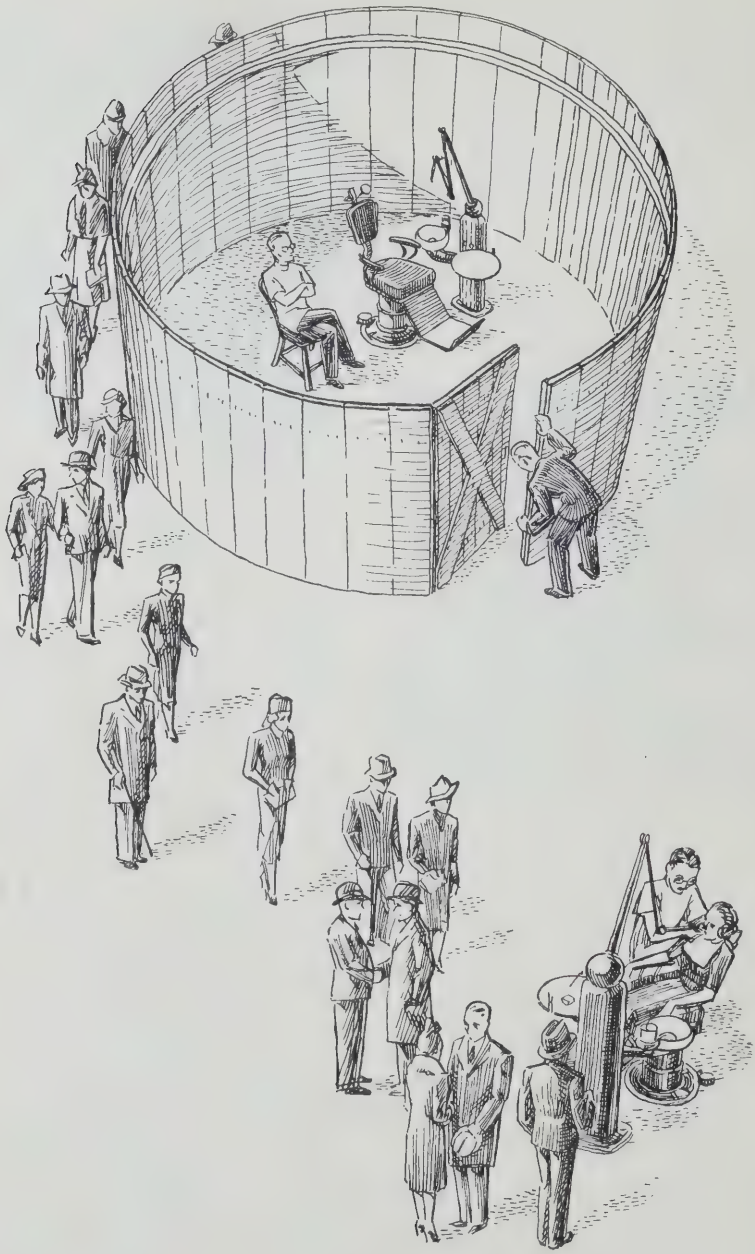
In the first place, there must be something that you did to attract patients that you have stopped doing. What was that something?

The dentist who is starting in a strange place must make some effort to acquire a circle of acquaintances who may become patients or who may refer patients to him. He must let people know who he is, *what* he is, and *where* he has his office.

If you ever had to make such a start, you probably remember how you did it. If you will check back and compare your activities, then, with your present activities, you will probably be surprised at the difference not only in *number* but in *kind*.

Remember, you cannot meet people unless you go where people can meet you, and that is just as true and just as vital in your practice today as it was when you were starting!

In the old days, when the church gave



a "social," you were there. And you met a lot of nice friendly people. Your being there gave many a chance to *see* you. In the old days you went down to the drug store and bought two ounces of iodine or something else. Today you probably send your assistant—and miss *showing yourself*. You miss *registering*

yourself on someone's mind. Who knows? Just *seeing* you might have reminded someone that he ought to "see" you about his teeth!

When you are neat, well-dressed and going about your business (or pleasure) in the right places, the impression made is favourable. Need we say that when you are not neat or are seen in the wrong places, the impression is "not so good?" *Everyone* knows that. Yes, but everyone doesn't practice it—or forgets.

Instead of going where you will meet dozens of the "right" people, you probably prefer a quiet evening with old friends. Who doesn't? No doubt you "don't like crowds" any more, but the various social groups afford the average professional man the best and sometimes the *only* means of *meeting new people.* You needed such associations when you were young and getting started. Now you need them *desperately* if you want that practice to be healthy!

We all know dentists who have *seemed* to violate all the conventional maxims for practice-building and yet have achieved a fair measure of success. The main point to remember, however, is that you started without "experience" and developed a practice that continued for some time to yield a reasonable living. The most obvious way to revive that practice to something approaching its former value is to *revive the methods that created it.*

Perhaps the most important single factor in success for a dentist is his "personality." Many people seem to think that personality is something that you always have, and that never changes. Nothing could be further from the truth! You "always have it"—as long as you are a person—but it is changing all the time. You are not the same person you were ten years ago.

One's personality may be improved or it may deteriorate, and sometimes ten or fifteen years of living will so change a personality that what was possible once is no longer possible for that person, unless he takes steps to eradicate habits and emotional trends which have caused him to change for the worse. Someone has said that the best way to break a bad habit is to acquire a good one. That is especially true of habits of thought. Getting back the personality that used to attract people to you may be the hardest job you ever undertook, but it can be done. "Just like his old self" is frequently said of friends who have won the fight. You can have them say the same about you *if it means enough to you.*

Nobody *has* to be a grouch!

Carelessness and neglect will ruin a personality and will ruin a practice also. Letting one's self run down at the heel physically, mentally, emotionally — yes, spiritually, if you please—changes one's personality. Your personal attitude toward patients and toward dentistry may change and will inevitably have its effect on your practice. If your attitude is changing for the better, your practice will show it.

When a practice is "slipping," it's a pretty good sign that something vital to the growth and stability of the practice has been allowed to slip first. It is the old law of cause and effect. Taking personal stock and looking back at *the man who built the practice* will usually put "sand" where it is needed to stop the slip and to start back up the grade. You did it once, and you can do it again. In fact, you're just about the only one who *can* do it for *your* practice!

It is as futile for us to believe that we can spend ourselves rich as for us to suppose that a man can drink himself sober.—Bulletin of Cleveland Trust Co.

The Forum

• FRACTURE OF THE JAW

by FULTON RISDON, M.B., F.R.C.S.(C.), D.D.S., Toronto, Ontario

Condensed from Canadian Medical Association Journal

IT IS my purpose in this brief discussion to consider fractures that are due to accident.

Impacted fractures, either in the lower or upper jaw, may present some difficulty in diagnosis, and also some confusion may arise where the surgical neck of the condyle or the coronoid process is fractured, but good stereoscopic x-rays will be invaluable, taken in the Waters position, the so-called postero-anterior position, and direct or oblique lateral views of the head. Any teeth in the line of fracture should be removed before reduction. In the upper jaw the most common fractures are through the antrum, the infraorbital border of the orbit, the nasal, malar and zygomatic bones, and in the lower jaw in the region of the angle, the cuspid or canine tooth area, or the surgical neck of the condyle. I am of the opinion that reduction of these fractures should be attempted as early as possible, and seldom is it necessary to wire through the bone or use a negative external splint.

When early reduction is attempted the displaced bones can be moved forward by manual manipulation, and generally without any instruments, especially the nasal bones. I favour the introduction of a finger into the nose to elevate the bones, and if that is impossible a very thin instrument may be used, but finger manipulation is much to be preferred when such can be accomplished. By holding the nasal bones externally between two fingers, with this internal manipulation, the proper contour of the nose may be restored. The nasal bones must be maintained in position by a splint which makes external pressure over the nasal bones, and some method of maintaining the elevation from within the nose must be devised. Seldom should nasal packing be employed, as many of these fractures are close to the cribriform plate and drainage would be obstructed. I am aware that there is a slight risk in this manipulation, but over a period of years I have been agreeably surprised that very little disturbance has followed such treatment, and by carrying out this plan a hideous deformity is easily corrected. The advantages are many, chiefly that the patient will be able to leave the hospital early and subsequent operations to restore the contour will be avoided.

In treatment of fractures of the mandible simple interdental wiring was advocated many years ago, but the author has recently devised a method which can be introduced into any operating-room, provided that the ordinary ligature wire as used for the regulation of teeth is available. This wire may be obtained through any dental supply house and is known as coarse Angle wire, number 187. One strand of this wire is placed around an upper molar tooth and is twisted firmly on itself as far forward as the central teeth, and the same on the opposite side. These wires are then twisted together over the central teeth. Following this, each tooth is wired to this newly constructed wire arch. The same procedure is carried out on the lower teeth. We now have a wire arch on the upper jaw and a wire arch on the lower jaw which is firmly attached to the teeth in both jaws. Interdental wiring binds the lower to the upper and at any time, this interdental

wiring may be divided without disturbing either wire arch, for inspection of the fracture. Further, a fracture in the upper jaw may be treated in the same way, that is using the mandible for a splint, whereas if the fracture is in the mandible the upper jaw may be used as a splint.

If a number of teeth are missing it may be necessary to construct a facsimile cast splint which may be cemented to the upper jaw as well as to the lower jaw. These are wired together, but this appliance is seldom necessary if teeth are present.

There is a special method for treating a fracture of the mandible where all teeth are missing that is known as circumferential wiring. This merely consists of introducing the lower denture over the fractured mandible and by throwing wires completely around the mandible in three places, but not through it, the denture is held firmly against the mandible, acting as a splint.

A number of methods have been devised for the correction of depressed malar and infraorbital fractures. One author suggests introducing an instrument at the hair-line above the malar bone or the zygoma, slipping it internally to the zygoma, down to the position of the malar bone, and then elevating this area. I prefer to make a small opening in the region of the canine fossa, directly elevating the malar bone or infraorbital ridge, then packing the antrum for eight to ten days with iodoform gauze. This method I have found to be very satisfactory.

There are many other fractures about the face, but in this brief paper they cannot be completely discussed, nor are we considering fractures where there is a marked laceration of brain tissue or where there has been some recent central disturbance. Emphasis is placed, however, on the method introduced by the author, namely, the wire arches on the upper and lower jaws. I believe that more or less complicated splints are necessary to retain the elevated position of a depressed fracture of the nasal bones, I prefer the Straith splint, with modifications which I have devised. When a nasal splint of this type is used it should be maintained in position for eight, twelve, or fourteen days, and for a simple fracture of the jaw the splint is retained for three to five weeks, provided the case has been splinted within the first week after injury.

If the fractured head of the condyle is dislocated it should be reduced by manipulation and passive movement started about the tenth day to avoid a trismus.

A non-union may result in some cases of fractured jaw, owing to the loss of bony substance. The cause of non-union is excessive movement resulting in eburnation of the two fragments. Consequently, at the time of the bone-graft operation it is necessary to cut back to bleeding bone. In such cases we allow for an interval of six to seven months after the last appearance of any suppuration. Then a sterile bone-graft is introduced through the neck, using the crest of the ileum. Interdental splints are cast of Victoria metal and they are maintained in position for two to three months.

• THE UNITARY SYSTEM OF DIAGNOSIS

by EDWARD SAMSON, L.D.S.R.C.S. Eng., F.C.S.
(Condensed from The Dental Record, October 1939)

AT CERTAIN and frequent periods we raise our voices in a wail against our lowly status, or, shall we say, the lowly status which is accorded to us by the public and other professions;—and the suggested cures for this lamented condition are as remarkable as they are illogical. Let us call ourselves doctors say some, deceiving themselves that the rose by any other name smells sweeter.

I would like to dispel this notion at the outset. A different title will not make

the dentist more honoured in the land whatever he cares to call himself, nor would it ever be as strange as some of the things other people call him. Whichever title we may adopt we shall always be judged on the ultimate issue by our own standards of work and behaviour, and not by those of another profession whose title we may wish to pilfer.

Perhaps the wisest dictum of all medical practice is that to cure a disease we must remove the cause; and the corollary to that must be, that to remove the cause it shall be correctly diagnosed, therefore, we can rightly demand that before any pathological condition can be treated to the best advantage we must arrive at an accurate and perfect diagnosis.

The patient arrives. A mirror and probe are at hand so a search for cavities begins. I suppose that because caries is the ever present dental disease, cavities are always uppermost in the dentist's mind. The search having revealed the desired amount of decay the filling process is begun. One filling after another is completed for no particular reason except that the cavities are there to be filled. Each visit of the patient is occupied by eliminating just another hole, and so through a series of appointments the dentist gently ambles round the mouth filling a tooth here and a tooth there until, one day, possibly weeks later, the patient asks how many more times she will have to visit him. At this point he counts up the remaining cavities and provides the required answer. So far there has been nothing of diagnosis and no more than a very simple mathematical calculation, that is, fillings in terms of fees or appointments. At the final visit he provides a nice clean up to make the mouth feel fine and says good-bye with the suggestion that the patient should return in six months' time to repeat the program. And that is advanced scientific dentistry.

We must not be too hasty in our judgment, however. The dentist does not alone confine his attention to the game of finding the cavity. He also has an eye to other deficiences. There may, for example, be a space in the mouth which suggests that a denture would be useful, so at some time during the series of visits this is suggested—suggested not, we trust, to swell the amount of work to be done. That would be hardly ethical, but proposed because any absence of more than two natural teeth always makes a dentist denture conscious. Or there may be evidence of inflammation of the gums which needs treatment. According to the dentist's taste this is called pyorrhea, gingivitis, alkalosis, endocrine unbalance or any of a variety of attractive names. And according to his views at the moment he will propose scaling, gingivectomy, vaccine therapy, extraction or massage.

In rare instances the examination will nearly reach the point of genuine diagnosis of a medical nature. This is usually when the patient has been referred by a doctor who has failed to cure a chronic systemic condition by the usual methods of removing tonsils, gall-bladder, appendix, ovaries or colon. It just depends at which end of the body the doctor has begun his pilgrimage of extirpation. If it be the nether end the removable organs below the mid line are dispensed with first. But if he is less surgical in his attitude the teeth will fall under suspicion straight away. And suspicion having fallen upon the teeth the dentist is given an opportunity to contribute his share towards reducing the patient to his least common denominator. At this moment he nearly becomes a diagnostician. He will, of course, begin with a radiographic examination. Whether his efforts succeed or fail, that which must interest us in this context is that he makes a close examination of the radiographs in conjunction with a careful clinical investigation, and it is practically the only occasion

in dental practice when anything slightly simulating reasonable diagnosis is conducted.

I contend that the diagnosis of most mouths cannot be made without preliminary models which must be articulated and closely examined, and that during this examination a vision of the normal arches and their articulation must be kept in mind.

It is amazing how unsound even the best cared jaws will appear when their models are placed together. Fillings that have been precisely executed, with clean cervical edges, we hope, are found to articulate with their opposing numbers badly or not at all. Teeth which appear sound when examined individually are seen to be rising out of their sockets due to the absence of their fellows in the opposite jaw. And other teeth will be found to have moved from their correct position due to extraction in front or behind them. These and many other defects which can only be seen on articulated models at once become obvious where a clinical examination would not reveal them. Yet they are most times accepted as normal, or at least, not requiring treatment, and this is only because we fail to keep in front of us a vision of the perfect mouth.

The constant patching of a tooth here, the insertion of a lump of metal there, the fixing of a crown and the extraction of a tooth, all these individual performances fail, even though they may be above criticism in the excellence of their technique. And they fail because they are done with only a regard to the tooth in question, and because that tooth is looked upon as an entity in itself and the cavity or root that affects it as a disease apart from the rest of the mouth. And only when a general condition such as a stomatitis or a general periodontitis attacks the mouth is it suddenly conceived as a unit.

The bite of both jaws, the articulation of individual teeth, the spaces left by extraction, and indeed, every detail must be appraised and intelligently correlated with every other. The entire picture must represent the mouth as a whole, and that picture mentally compared with a vision of the perfect mouth. It is manifestly absurd to imagine that an articulation can be correctly estimated without viewing it from the lingual aspect as well as the buccal and labial, and only by using models is this possible.

If traumatic occlusion can produce diseased periodontal conditions in teeth which are sound and only misplaced or over-developed in their cusps, how much more likely it is that the many types of imperfect fillings which are done will produce the same symptoms. Even those who endeavour to make a metallic reconstruction look something like the original tooth—and they are few enough—even they pay no regard to the normal occlusion. The result of this is that there are millions of teeth in a state of malocclusion which will ultimately create gingival and periodontal disorders. Fillings touch their opposing teeth at only a few, or no points. These, in their turn, are the cause of stagnation areas and gingivitis due to the lack of complete function in the partially used teeth.

I am not here concerned with the ethics of constructing anatomically imperfect fillings. Even if I were it would have little effect, because those who build their fillings badly would not admit it and those who make perfect ones are as common as four-leaved clover. That which does concern me is the diagnosis of the mouth, and when models of any jaws, carrying numerous, large fillings are made and articulated it will be seen how useless it is to call a search for cavities with a probe a diagnosis.

We still continue to wait for pathological sequelae to present themselves before

we think of treating them, and when we do undertake treatment of these conditions it is always as separate entities. Gingivitis and pyorrhea are approached as diseases *per se* according to which of the hundred and one theorists we support. Pyorrheal teeth are removed when they become a nuisance to the patient or when the doctor has failed to suggest any other cause for the gastric ulcer. Scalings are undertaken when there is tartar or when a consultation provides no other operation to fill in the half hour. Dentures are inserted to fill spaces for aesthetic, masticatory or remunerative reasons, never or seldom because a tooth or teeth have become functionless. Yet all these various and separate conditions are interdependent and can be so easily associated by taking an inclusive view of the mouth when it is examined.

No diagnosis can be complete, or indeed, justify its name unless every form of test is applied to the mouth concerned. Firstly there must be the clinical investigation with mirror, probe and discretion. Then the radiographic investigation with intelligent interpretation — finally, with the use of articulated models. When the findings from these three methods are compared with the standard of a functionally perfect mouth a correct diagnosis, and more important, an accurate prognosis can be made.

We have now reached that illogical state of specialization when the dentist thinks mostly of the tooth, the whole tooth and nothing but the tooth, and very occasionally of the gums. But it must be recognized by the most amalgam-minded of us that no one factor of the mouth can be disassociated from the rest —that the mouth is a unit—a masticating machine, and when one of its parts fails the rest will inevitably be decreased in efficiency, even if that decrease comes at a much later date.

The long-established method of quoting or charging fees on an itemized basis is both unsound dentistry and bad economics. To sell fillings at so much each, like boots or packets of cigarettes, might be commercially sound if they were standardized like other articles of trade. But we are not shopkeepers, and though we despise these traders from our superior heights, the selling of our work according to a set list of charges places us in exactly their position. This unworthy state to which dentistry has descended, largely due to our attitude to our work, has been made almost unalterable by the present plan of National Health Insurance work. Of recent years the iniquitous scale of fees, administered by the Approved Societies, has done irreparable damage to the economic relations between dentists and their patients, even in practices where panel work is not undertaken. The notion that fillings, scalings and extraction can be exactly priced, and that dentures can be sold at so much a tooth has become accepted by the dentist and public alike. The young man entering practice today knows no view of quoting fees other than the catalogue-price one. But an inclusive form of diagnosis and estimation will eliminate this false conception at once.

When the models of the jaws have been articulated they can be shown to the patient with a brief explanation of the work required. It will then be emphasized that the treatment proposed is not with a view to patching up a defect here and there but with the entire object of rendering the mouth functionally sound as a unit. A fee can then be quoted for this inclusive operation. It may include a number of fillings, a scaling, gum treatment, extractions and dentures, and the dentist may even make his calculations and arrive at the fee by way of itemized reckoning, but to the patient he will suggest only one fee. This immediately dispels the notion that any in-

dividual part of the treatment is more necessary than the others, and it will obviate the possibility of the patient suggesting that the urgent work should be done but the other be left because she cannot just then afford it. It must be insisted that every stage in the work is essential to rendering the mouth as nearly perfect as possible, and that no one part of the process is more or less useful to that end than the rest. If, on the other hand, the dentist wishes to reduce his fee in order to assist the patient, he can do so from the total cost, and not, most emphatically not, by allowing a denture to be omitted or a mild gingivitis to be allowed to go untreated until it becomes more serious.

The notion that a filling can be worth a fixed fee of seven and sixpence is ridiculous, and as stupid as believing that every type of scaling can only be valued at a pre-arranged sum. Naturally, with a scale of fees like a barber's list of charges in front of them, the public holds dental service in as little esteem as a haircutting or shampoo, and certainly not nearly as valuable as a permanent wave.

Can we conceive anything less scientific or more out of harmony with advanced medicine or dentistry than to pre-arrange a fixed fee for treatment of so variable a machine as the human body? Can we imagine what the results would be if the doctor viewed every symptom of his patient as a separate entity? Conceive the plight of the patient whose temperature was viewed independently from his pulse rate; whose heart was examined with a stethoscope only if the Approved Society agreed to include that with blood and urine tests. The possibility is too insane to contemplate. Despite the modern tendency to specialization with its doubtfully good effect of departmentalizing diagnosis more and still more, there are fortunately a few general practitioners left who have to view the entire picture, and piece together all its component parts before they can hope to pronounce a balanced opinion. But if ever there were dental practitioners who diagnosed the mouth as an entire unit, inseparable from the rest of the body and its functions—if ever there existed such dentists the scale of fees must have driven them to insanity or poverty.

If we tolerate a panel system which exposes the foundations of our daily work as unsound, we cannot hope to be held in the same awe as a profession that would not accept restrictions so unreasonable. But the question is deeper than panel practice or status, and far graver than a mere matter of professional dignity. The public soon regards a profession as it regards itself; in other words, we can only expect to be held in high esteem if we think well of ourselves. And that we mostly do not. Neither can we hope to do so while we know that we are offering fillings and dentures, extractions and scalings on the open market at fixed rates. The poor, starved dental profession will soon be demanding that a Filling Marketing Board be set up to assist in the sales of its wares.

Status is a state of mind. And the correct state of mind for dentists is one in which the mouth is comprehended as a unit of the body, related to and dependent upon that body as that body is upon the mouth. Just as soon as dentists begin to approach their daily work with that belief constantly in mind, so soon will the public begin to think of us as men who are indispensable to national health and well-being. Then, and then only will the old odour of the tooth-drawer leave us, for we cannot deny that it has not yet gone, nor will it while we still extract for so much per tooth.

Recently Dr. Fish expounded a new theory of full denture construction. The working basis of his hypothesis was the effects of the musculature of the lips and

cheeks, and more particularly the muscles of mastication on the full denture. Here we see the logical approach to prosthetic work. Instead of making dentures to fit ridges and palates, he realized that the tongue on the one side and muscular structures on the other were vital factors in the successful making and use of full dentures. If this is so, then how much more essential it is that we take into consideration every condition, physiological and pathological when appraising the state of the natural dentition.

It would be mere repetition to stress this point further. I can only conclude by saying that if we are to improve our remuneration, which we all hope to do, if we are to rise in the estimation of the individual patient and the general public, which we have need to do, and if we are to create a valuable public dental service for the nation, which we ought to do, we must think in terms of the perfect mouth, functioning to its maximum efficiency. That alone should be the aim of every effort, big or small, and only by working to such an ideal can we ever hope to be anything more than skilled metal workers with no more distinction than that of being one of the exempted occupations on the National Register, along with cuff-link makers and jewellers' assistants.

• THE PLATINUM METALS IN 1939

THE International Nickel Company reports the world production of platinum metals at approximately 500,000 ounces for 1939.

The main market is the United States where imports will exceed 250,000 ounces. Inadequate supplies at outbreak of the war resulted in rise for platinum from $35.00 to $42.00. Iridium from $65.00 to $175.00. Palladium at $24.00 and rhodium at $125.00 have held steady throughout.

Gold supplies are limited in many countries. Suitable substitutes for gold must be found for dental and other scientific purposes. Thus an increasing demand for platinum metals and particularly palladium, which is an essential element in dental alloys.

One ounce of palladium will replace two ounces of gold when considering price and specific gravity. Lower karat golds are made more tarnish resistant by the addition of a small amount of palladium.

An important step was the further development of the casting of platinum and iridium - platinum, making possible the baking of high fusing, high strength porcelain over a cast platinum framework. —*N.Y. Jour. of D., April,* 1940.

• SILICATE CEMENTS

by EDWARD E. KRAUSE, D.D.S., Milwaukee, Wis.

(Conclusions of paper in Journal of Wisconsin Dental Society, November-December, 1939.)

1. Place rubber dam.
2. Prepare cavities on anterior teeth from the lingual wherever possible, extending very slightly to the labial.
3. Avoid extension wherever possible to beneath the filled gum margin. (This violates Black's teachings, but clinical experience proves it is better.)
4. Do not destroy natural tooth contact point if it can be avoided.
5. Allow cavo-surface angle to be as near a right angle as possible. Weak enamel rods are stronger than silicate cement.
6. Use zinc phosphate or varnish base in all cavities. Remove from region of margin.
7. Cool a clean glass slab to 65°-70°. Cool the spatula also.
8. Mix quickly. Less than one minute. Actual setting starts the moment mixing begins.
9. Pack in cavity in rapid order, avoiding trapping of air, and hold under

constant pressure with matrix. Do not disturb in any manner for three minutes.

10. Cover with paraffin wax at once to prevent loss of moisture and to prevent contact with saliva for at least two to three hours.
11. Finish and polish not sooner than twenty-four hours after placing, using stones and discs under water, cocoa butter or vaseline. Water produces the best results.
12. Confine the usage of silicate cement to proximal cavities, not including the incisal angle, on anterior teeth only. Do not use silicate cement to fill cavities on the distal surface of cuspids.

In conclusion, knowing that a silicate cement filling is inferior, give the patient the complete story in regard to its weakness and limitations. You will find that it is a surprising number that will ask for gold foil, gold inlay, or a porcelain inlay.

Editorial Note: Dr. Krause is Instructor in Operative Dentistry, Marquette University.

• INTERNATIONAL RELATIONSHIPS

by EUDORE DUBEAU, BsC., L.D.S., D.D.S., Montreal, Quebec.

(Condensed from address given at Baltimore, March 1st, by Dr. Dubeau who represented the Canadian Dental Association at the Centennial Celebration held in that City. Dr. Dubeau presented this address at the inaugural meeting of the American College of Dentists, a program presented as an introduction to the three days of celebration to follow).

ON behalf of the Canadian Dental Association, I wish to thank you for your kind invitation to us Canadians, to participate in this great event, the Dental Centenary Celebration. I regret that our distinguished president, Dr. Stephen A. Moore, of London, Ontario, is unable to be here due to illness, as he would have been better able to discuss the subject of "International Relationships."

In the Journal of the American College of Dentists—December, 1939—we read as follows: "Dentistry in its present stage, as an autonomous profession is distinctly an American accomplishment, and throughout the world it is credited." This is exactly what we Canadians, of French or English origin, think of American dentistry, and since the obtaining of our dental charters, the Province of Ontario in 1868, the Province of Quebec in 1869, we have followed your evolution; and our five Canadian schools, which have the advantage of being affiliated with the American Association of dental schools, have endorsed its curriculum. I may add that in the case of the school which I represent and of which I am the founder and dean, we teach exclusively in the French language and since 1933 we have required for matriculation from our students a B.A. degree. We are using the American Dental Text books, all our students understanding the English language sufficiently to read them. The existence of our two French speaking universities, in Quebec and Montreal, is necessary because 3½ million of French Canadians live in Quebec Province and over 1½ million in the New England States. A great number of these come to us to attend courses in dentistry, medicine, law, etc.

Many young European dentists also come to American schools to obtain a D.D.S. degree. In our school, 65 European dentists speaking French, but ignoring the English language, have taken their degree with us in the past years because we are affiliated with the American Dental Schools and follow as closely as possible the same curriculum.

In that article of the Journal of the American College of Dentists from which I have already quoted, we also read the following: "This being true (that dentistry is distinctly an American accomplishment) it is strange to encounter practitioners who manifest concern and discontent as to their status and prestige

in the family of professions, or to hear the often repeated statement that "dentists as a group exhibit an inferiority complex."

I have heard this statement expressed quite often by dentists in Canada; these dentists belong to two groups—the first one, the pessimists who do harm to our profession by their unjust criticism, and the second group—those who never attend dental meetings and take no interest in the profession. No doubt, in the past, we have suffered from the lack of instruction or empirism of our predecessors and we have the proof of it in the indifference of the medical profession toward the first dental school of which we are celebrating the Centenary today, but we all know that actually the dental profession in the United States works hand in hand with the medical profession, the same as we do in Canada, and that now dentistry receives the same consideration as medicine.

I think that I have said enough to show you that the "International Relationship" between Canada and the United States is as nearly perfect as it can be and that we are both working jointly to prevent dental diseases by the establishment of research associations and by the co-operation of our national bodies in an effort to educate the general public.

Now, concerning the International Relationships between American dentistry and with Europe and other countries—if you ask me what has been done and what could be done to raise their standards of efficiency towards the public at large, I would answer: The International Dental Federation established in 1900. As I have mentioned before, this Federation, the present President being Dr. W. G. H. Logan, of Chicago, has done good work to that end. It is composed of delegates of 32 different countries.

Its work has been handicapped by the medical profession everywhere. It would be more exact to say by a group of medical men who having no knowledge of dentistry and being unsuccessful in their practice have and are still hiring mechanical men to work for them.

In some countries, as there are always more physicians than dentists as members of Parliament, they have succeeded in having laws passed requiring a diploma of Doctor of Medicine in order to practise dentistry. In France, the matter was referred by the Parliament to the Academy of Medicine, which, by a vote of 29 to 11, decided a few years ago that both professions should exist independently. Last year, however, a new movement was brought again before the French Parliament asking for an M.D. degree for dentists. The war has suspended the fight between the physicians and the dentists, but it will certainly be resumed after the war.

Could not American dentistry, with its practitioners scattered all over the world, help them in their struggle, and consequently protect the public who needs good dental services?

I think so, and I have no doubt that after the war is over, the International Dental Federation will resume its fine work, and receive the strong and unanimous support of the American dental profession.

• DENTAL CARIES

ACCORDING to Drs. Jundell and Billing (*Acta Paediatrica,* Vol. 23, March, 1939), a carefully controlled survey of dental caries, extending over ten years, showed that the incidence of caries among children was not affected by supplementing either their diet, or that of the mother while pregnant, with vitamin D or with liver preparations. This conclusion applied to both the first and second dentitions.—*Dental Record, October,* 1939.

• COMPENSATIONS AT 70

by R. TAIT McKENZIE, M.D.

(Abstract of paper in the Transactions and Studies of the College of Physicians of Philadelphia.)

"AS the years gather round us like stern faces giving no quarter" we put away reluctantly the boxing gloves, the running shoes, the tennis racket; even the golf clubs are left in their bag. Of course, many keep up violent exercise to an advanced age; but they modify the pace. One can cover 100 yards at 70—but not in 10 seconds. One can cut down trees with an axe—but not for ten hours a day. The old boxer or wrestler learns how to rest his tired heart even when apparently in violent action. The attempt to carry the pace of 20 or 40 into 70 is the peril that constantly faces the veteran athlete who retains his ambitions or, more properly, who cannot curb his vanity, and who boasts that in his case at least the years have not taken their toll. It is akin to the vanity of the hard drinker who thinks he at least is exempt from the physiological effects of alcohol. To him will come the strained muscle and the heaving chest. My obstinate friend Robert Barr at 60 dilated his heart beyond recovery by insisting on going up a mountain he had climbed thirty years before, and at the same pace. Breathlessness is the red light that must not be passed. It is easy to see but sore to feel. Even as we walk, it warns us of rising ground when the ordinary eye would scarcely notice it. It is then that the wise old man stops to admire the scenery, to look into the shop window. He learns to be resourceful in subterfuge and deception to avoid the wounds to his vanity by the casual question of a companion when he has to obey suddenly the warning signal.

What one must strive for at 70 is poise —mental as well as physical. One must learn to accept the arm of youth with grace, if not yet with gratitude. The world of the blind is said to be limited by the reach of its arms, but he must be supreme within his limit. And so the physical field of the aged is limited by the power of his heart and the state of his senses, and he can still be supreme within his realm. The King has one precious gift to bestow that is his unique contribution. That gift is "Attention," and it is strictly limited. He can notice a person. Thousands of people go to infinite trouble and great expense for a moment's conversation or even for a bow or smile from a royal head. And our vitality is like the attention of the King. We have a limited amount to give and must expend it with increasing thrift as we grow older.

All the accumulated experience of an active life, all the ruses he has learned, all the hidden ways of saving energy, and unnecessary movement, the acquired skills of years come to his aid, and there is a peculiar satisfaction in accomplishing skilfully and without undue effort what the young and unskilled have to struggle over without avail.

Most of the regrets of my age are for what I did not do when I had the chance, and for the neglect to record interesting adventures and encounters, vivid at the time, that have gradually become hazy and finally obliterated by the fog of the years. The little kindnesses that one should have done and didn't; the wrong let go unrighted. Youth is so thoughtless and preoccupied by its own affairs, lacking perspective, so often letting the "urgent" take precedence over the "important" things; and I think one of the compensations of 70 is a keener appreciation of experiences that are scarcely noticed at 30: the contact with a fine mind or personality; the grace that goes with polished speaking and writing; the use of the inevitable adjective in verse or prose. And so one turns to the company of the great through biography, pitting his judgment and experience of life against

that of the subject of the biographer, thinking how he himself would have acted under similar conditions.

It is only with the increase of years that we get a true appreciation of style, and, as we browse among familiar books, new beauties peep out like the hepaticas and violets when we take our familiar daily walk in the spring woods. Old books reveal new qualities, and we realize how much we missed along what seemed familiar and well-trodden paths.

Of course, the most astounding and satisfying of all compendiums of wisdom and literature is the Bible. No one can get the flavour of good English without being soaked in its varied and thrilling contents. How can one taste Kipling without it? What is his cry, "Whence comest thou, Gahazi," without a knowledge of the full story of Naaman? And here age has the advantage of youth and is constantly trying to plant its experience into the unheeding minds of the young. That is the hard task of the teacher and college professor. The knowledge and understanding of fine literature, judgment and experience must be cumulative. It is one of the great compensations of old age.

In summing up "the ledger of life at 70," balancing its debits and credits, I think the credits have it.

The physical losses of age are balanced by the flattering recollection of the fine animal one once was, and one has not the necessity of proving it continually to the incredulous.

The reserve of accumulated knowledge and experience balances the loss of ability for prolonged effort. The mist of time veils our failures and evasions of decision, our neglect of obvious opportunity, with increasing kindness as the years make it denser. We forget the times when we were asked to make an observation, to write a paper, to look up a reference, to do some service, and let the chance go by default. An account of a man's life written by himself must be always tinged with vanity, conscious or unconscious, omissions, and the lapses of memory which increase with age, the embroidery of facts. The past looms larger and larger with his life.

Memory becomes more important than anticipation, and unfortunately the painful memories are the first to become dim and disappear.

When one has sucked the juices of the tree of life for seventy years he should not complain when they slowly dry up and he becomes like a ripe apple, ready to fall. He should be willing to fall without regrets. He should be able to say with Audrey Brown, "I shall grow old with autumn and not reluctantly." Seventy years of health and strength, mental and physical, is a pretty good run; at that age one can call it a day; and if we sign on for a short extension of the contract, it should be only on the condition that the care of the old machine be not too burdensome. As soon as it begins to creak too loudly, and when it takes all our time and attention, let us hope it may be promptly scrapped—painlessly, if possible. If not, let us retain at least our fortitude.

• VITAMIN A

AN important fact to remember is that vitamin A is soluble in fat. Therefore, persons taking mineral oil are apt to suffer from an avitaminosis of A even though partaking of adequate amounts. The A is soluble in the oil and the oil is not absorbed into the body, hence the A is lost.—*Willa Yeretsky, in Jour. of Mich. State D. Soc., Sept., 1939.*

I never make the mistake of arguing with people for whose opinions I have no respect.—Gibbon.

• ORAL SEPSIS IN RELATION TO RHEUMATIC CONDITIONS

by DR. H. WARREN CROWE

Summary of paper in B.D. Jour., March 1, 1940

IF ON examining a mouth clinically and radiologically there is such dental infection as you would consider unhealthy, whether in the presence of rheumatism or not, then extract. If there is no such degree of infection, then delay. There is one exception to this general rule, and that is in true rheumatoid arthritis when extreme caution is indicated, as a serious flare-up may follow extractions. As it is quite certain that in the next few years there will be a considerable revival of vaccine therapy for rheumatism, I would ask you always to keep in mind the advisability of having an extracted tooth cultured.

• OFFICE PRACTICE

DR. LAWRENCE J. DUNN made a vigorous plea, at the Greater New York Dental Meeting, for economic success. Quoting Kent of Harvard, Dr. Dunn maintained that financial success is a requirement necessary for social respect in order to attain a well rounded professional life. Professional success is a practical accomplishment based on financial success and financial needs. Many patients are driven away by laziness and carelessness on the part of the dentist, and only by imparting a deep feeling of sincere concern can we convince the patient that we are truly interested in his trouble.

It is a good plan to telephone the home of the patient after a difficult operation to inquire into his condition. The dentist who is unable to like people in general has a tremendous handicap. A belief in the importance of our service, as well as the ability to offer this service, is a necessary requirement for professional success.—*Roy D. Ribble, in N.Y. Jour. of D.*

• ZEPHIRAN

A CHEMICAL weapon against tooth decay that may prove as effective as sulfanilamide has against streptococcus infections was announced by Drs. Benjamin F. Miller, Sigmund Bradel and John A. Muntz, of the Zoller Memorial Dental Clinic of the University of Chicago. The new anti-caries chemical, called Zephiran, was made by Professor Gerhard Domagk, of the I. G. Farbenindustrie in Germany, who gave sulfanilamide to the world and who was awarded the 1939 Nobel Prize for this achievement. Long-term studies of Zephiran with patients suffering from dental caries are now under way, following the promising results of the laboratory experiments. Zephiran was tried after it was found that two other chemicals, sodium fluoride and iodoacetate, markedly reduced the amount of experimental caries or tooth decay in rats. Search for a better and less poisonous substance than sodium fluoride or iodoacetate to use on human patients led to the trials of Zephiran. This substance is, in chemical terms, alkyl dimethyl benzyl ammonium chloride. It is a powerful germ-killer. In addition, it acts as a cleansing agent, is relatively harmless to mucous membranes such as line the inside of the mouth, and it lowers the surface tension of water.—*Science, per N.Y. Jour. of D., April,* 1940.

• DENTISTRY

THE practice of dentistry today is a science and an art—not a trade; a profession—not a business. At the same time, dentists are highly trained artisans who exercise equally manual dexterity and scientific knowledge.

Frequently a large part of our services has little to do with fillings, dentures, and dental surgery, but consists of the practice of dental medicine. You, as a trusted family counsellor, are consulted regarding the relation of diseased teeth

to general health. Often the major part of our work will have nothing to do with the mechanics of dentistry. In this manner our influence is of perennial importance to health. — *Calvin William Knowles, M.D., D.D.S., San Francisco, California, in N. Y. Jour. of D.*

• DENTAL CARIES AND VITAMIN C

by T. SANDBERG and H. DAGULF

THE blood ascorbic acid and frequency of dental caries were examined in 190 persons some healthy and some suffering from tuberculosis. At least two estimations were made in each case: the ascorbic acid in spring and autumn, 1938, and the caries in December, 1937, and December, 1938. Correlation of these results gave no evidence of relationship between vitamin C and caries. The investigation does not support the belief that vitamin C deficiency is an aetiological factor as regards dental caries. Although the tuberculous patients showed a very much lowered vitamin C standard, they showed no higher caries frequency. — *Svensk Tandläk. Tidsk* (No. 3, 1939), per Dental Record, October, 1939.

• CHARM

IF only one knew the essential qualities of Charm, one might be able to cultivate it. But nobody does. It is indefinable . . . A quiet but very definite sense of humour gives it a sense of proportion, not only where the heart solely is concerned, but also the head. It is unassertive. It wins all its battles without seemingly waging warfare. It never self-advertises; it never engulfs; it never seeks to pose. It is more potent at the quieter end of the social drawing-room. It is the most enchanting company *à deux* or *à trois,* but it is never the life and soul of any large party. That is why it endures to the very end and is ageless. Most of those who possess it, possess it unknowingly. It exudes from them unconsciously. Once they are aware of it, they lose it. It must come naturally or not at all.—*Richard King in the "Tatler".*

I believe the word "extract" is a hard, harsh, sharp word. It falls upon people already emotional and worrying and does not do them any good. It seems to me a substitute might be the word "remove." It is a soft, gentle word. "Remove" does not cut anybody. I hear the word "expensive" being used. This is more expensive than that. I would never have any expensive service in my dental office. It would all be reasonable in proportion to what it did in its service. I would never compare a thing upward by saying this is more expensive than this, but I would compare it downward—this costs less than this. I would never file, scrape, curette, grind, or cut. I would smooth in my work. I am sure patients' emotions are much better handled by the word "smooth" than the word "grind."—Louis Hill, D.D.S., Los Angeles, Cal., in the N.Y. Jour. of D.

I know that I have the sympathy of you all when I say that to-day a meticulous scaling is grossly unremunerative even in private practice and infamously so at panel rates, and you, gentlemen, have my sympathy when I tell you that unless you, each and every one of you, become a very prince among scalers, you have no chance of achieving a single real success in the treatment of pyorrhea. Scale plu-perfectly and you have played your part in the salvation of thousands of teeth otherwise condemned to extrusion or extraction; scale indifferently and you might as well not scale at all.— J. C. P. Besford, L.D.S. Manc., in British Dental Journal.

PRINCE EDWARD ISLAND

Editor—M. H. GARVIN, Winnipeg

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Inferiority Complex

At the National Centennial Celebration held in Baltimore, Dr. Paul R. Stillman was made the official Chairman of the Periodontal Section, appointed to this position even though unable to attend, in recognition of his great service to dentistry. From his sick bed in Florida, Dr. Stillman has written a thought-provoking article entitled, "In Retrospection" which appears in this issue of the Journal.

In this Journal, also, appears an excellent paper on somewhat the same subject by Brigadier General Leigh C. Fairbank, Chief of the Dental Division of the Surgeon General's Office of the United States Army. Both writers refer to the problem of "Inferiority Complex" which exists in the minds of some dentists in relation to the profession of medicine. No dentist should permit such a complex to exist, and yet we know that such is the case with many dentists and the reasons for this are worthy of our consideration.

The separation of dentistry from medicine was noticeable as far back as the eleventh century when certain groups known as "barbers" achieved considerable importance. Up to the fourteenth century oral specialists made considerable progress. The term "dentista" was applied first to oral specialists in 1461 and was in common use by the sixteenth century and by early in the eighteenth century dentistry was practically an autonomous pro-

fession. Since then it has made great and most praiseworthy progress. It is hardly fair, therefore, to say that the fact that medicine and dentistry are separated today is due entirely to the action of the University of Maryland in 1840 when the first dental school was founded. Dr. J. Ben Robinson has ably described this situation in these words: "Dentistry is not the 'errant child' of medicine but a legitimate, self-determining profession over which medicine has exercised little influence for or against. It is all well and good to argue that the *art of dentistry* should approximate in character the *art of medicine* as an aid in the solution of oral health problems, but to the careful observer it is clear that they can be brought only so near, after which the nature of one becomes intolerable to the nature of the other. This point is reached when the intricate problems of dental practice are not understood by medicine or when under the most favourable circumstances the medical curriculum cannot develop in the student the dentist's art without altering the traditional concept of medical education. The restorative and reparative procedures in oral treatment that were not and could not be mastered by the physician without special training were the first cause of the separation of dentistry from medicine. This characteristic difference will continue to serve as a natural barrier to their union. As a consequence, these two arts cannot merge without injury to both; they can, and should, parallel as separate, useful branches of the healing art."

This being the case it behoves us, as dentists, to raise the standards of our branch of the healing art to as high a plane as possible. In doing so we will encourage more of the brilliant young men of our land to engage in the practice of dentistry. We will give them a training complete in its practical and inspirational qualities. We will try to set them the best example possible by our own ethical standards. We will give adequate financial support to our national dental organization as do our medical brothers, and will cease the wishful thinking that our great and pressing problems can be adequately handled by voluntary effort. The granting of an M.D. degree to a dentist will not overcome his inferiority complex as related to medicine nor will it place him on a higher plane in the eyes of the community. Many of our dentists now belong to the most select clubs in our land and are most highly respected citizens and enjoy an enviable reputation. More will reach this goal when they are prepared to make the sacrifice necessary for its attainment and much will depend obviously upon the development of our dental schools.

Lloyd E. Blauch, Exec. Sec. of the Curriculum Survey Committee of the American Association of Dental Schools, says: "There can be no such thing as a great profession without great professional schools. The profession becomes largely what the schools make it through educating its members." While the perfection of restorations must still be stressed, simplified techniques must be developed and the chief emphasis must be placed on dentistry as a health service. Our students must be trained to render service on a professional basis rather than on the basis of technique. Basic sciences must receive increasing attention. History-taking and its implications must be

emphasized. Adequate pathological laboratory training must be given. To a great extent opportunities should be made for special instruction in the principles of medicine and physical diagnosis, to attend the medical and surgical rounds of the hospital and take part in the general discussion, to become familiar with general operating room technique and, if possible, be permitted to assist. Above all the study of dental physiology should be stressed. Dr. Stillman has well said: "Dental physiology will make dental pathology comprehensible," and General Fairbank calls our attention to the fact that dental diseases may be considered as signs and symptoms of a disturbed physiology. Physiology treats of the functions of the human organism and is today the major subject of medical science, the basic idea being the recognition of that part of the body which performs a definite function for the benefit of the entire organism, and surely mouth structures are a part of the body. When dental physiology is developed as it should be, "Dentistry, as a branch of the healing art, will become comprehensible."

The past century can be understood as dentistry's *art* era. A new formula is now at work which reads "Dentistry is a branch of the healing art, coequal to a specialty of medicine." The "healing art" refers to medicine as a biological art, the material of that art being an organism. Once upon a time a dentist possessed a "customer" for whom he worked. Under the influence of the formula, dentistry is a profession, the customer became a "patient." Soon that patient will be recognized as an organism and biological dentistry will be born. Dental prosthesis will be provided with a working science to be known as Dental Physiology. Its theme will be "the function of the teeth" and then all dental art will be oriented with existing biological science. Let us all work to this end and when this day arrives there will be few dentists who will feel any inferiority complex in relation to medical practitioners.

I cannot close the discussion of this rather abstract theme without expressing my appreciation to Dr. Paul R. Stillman for his very valuable assistance in arriving at these conclusions, through his articles, and his personal correspondence dealing with the future status of dentistry. As I think of him, an invalid in a small Florida town, far removed from the scene of his former activities and many friends, isolated from those contacts which have been his very life, and yet still determined to serve his profession, I am reminded of Beethoven's words: "The barriers are not yet erected which shall say to aspiring talent, Thus far and no farther," and also of these inspiring words of Solomon:

"Happy is the man that findeth *wisdom,*
And the man that getteth understanding:
For the merchandise of it is better than the
merchandise of silver,
And the gain thereof, than fine gold.
She is more precious than rubies:
And all the things thou canst desire
Are not to be compared unto her."

CORRESPONDENCE

April 24, 1940.

To the Editor, Journal of the C.D.A.:

We had the pleasure some ten days ago of entertaining a number of the Officers of the First Company of the Canadian Dental Corps at a dinner at the Dorchester Hotel and we were fortunately able to secure the attendance of the heads of each of the three Service Departments here—Captain Fletcher, Director of the Dental Service of the Navy; Colonel Clewer, Director of the Army Dental Service and Group-Captain Somerville-Woodiwis, who is in charge of the Dental Branch of the Air Force. Major Trelford gave us a very interesting account of the organisation of the Corps. This, of course, would not be new to you, but it is of so much interest to our members generally that I propose to publish his speech in the May 15 issue of the Journal. This was altogether a very enjoyable evening and I think that your boys enjoyed themselves quite as much as we did.

You will have gathered from some of the Editorial articles in the Journal that we are holding up your Canadian Corps as an example to our authorities here, we hope, with some effect. As you will gather, our Army Dental Corps is having an exceedingly stiff time as the dental standard of the recruits to the Army is exceedingly low and the number of men for which each officer is responsible is so high that there is little hope, under present conditions, of our men reaching anything like the standard attained by the Canadian Dental Corps.

(Signed) BRYAN J. WOOD,
Editor, British Dental Journal.

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April 18, 1940.

To Mr. W. G. Senior, Secretary, British Dental Association:

I am just in receipt of a communication from Major W. G. Trelford, E.D., Officer Commanding the Canadian Dental Corps attached to the First Canadian Division, and he advises me of the many kindnesses and gracious acts which he and the members of his Corps have received at the hands of the officers and members of the British Dental Association.

These acts of thoughtfulness on your part cannot help but join more closely this country to the Motherland and, under the present abnormal conditions, are doubly appreciated. On behalf of the Canadian Dental Association, I would ask you to express to the officers and members of the British Dental Association our deep and sincere thanks.

The members of the dental profession in Canada are very proud of the Canadian Dental Corps. The reorganization is based upon negotiations between the Department of National Defence and the Canadian Dental Association and many of its officers are among the most prominent dentists in Canada. All are exceptionally well qualified. We are particularly proud of the personnel of the Canadian Dental Corps attached to the First Canadian Division, many of whom occupied prominent offices in dental organizations throughout Canada.

We, your confrères in Canada, extend to the British Dental Association our best wishes and admiration for the manner in which you are carrying on under extreme difficulties. We trust that the conditions causing the national emergency may soon be corrected and brought to a speedy and successful conclusion.

(*Signed*) STEPHEN A. MOORE,
President, Canadian Dental Association.

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April 26, 1940.

To the Editor, Journal of C.D.A.:

It has been brought to the notice of this Hq. that a number of the Provincial Dental Boards have exempted members of their respective bodies from payment of the annual dues while serving in the Armed forces of the Dominion.

This action is very much appreciated by the officers concerned, and it is the wish of this Hq. that an expression of that appreciation might be published in the Journal in the near future.

(*Signed*) F. M. LOTT,
Director Dental Service.

DENTAL CORPS NEWS

Complimentary Dinner

On April 13 the British Dental Association gave a complimentary dinner to the officers of the 1st Divisional Dental Company, Canadian Dental Corps, Canadian Active Service Force, in the Dorchester Hotel. The President, Mr. W. R. Wood, was in the chair and he proposed the toast to His Majesty the King. The Chairman also proposed the toast to the Canadian Dental Corps which was replied to by Major W. G. Trelford, V.D., Major I. W. Hamilton and Captain J. P. Lantier.

"Then Dental Branches of the Home Forces" was proposed by Mr. R. G. Heegaard Warner, Chairman of Council, British Dental Association, and was replied to by Surgeon Captain (D) E. E. Fletcher, C.B.E., Colonel D. Clewer and Group-Captain L. Somerville-Woodiwis.

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No. 1 Company Headquarters London, Ontario

Seventeen dentists have joined the Canadian Dental Corps from M. D. 1, two of whom have proceeded overseas, and four to the Air Force.

Headquarters, District Dental Officer, Major J. F. Blair, D.S.O.

Quartermaster for No. 1 Company, Lieut. C. F. Steele.

No. 1. Clinic at London: Capt. and Adj. D. J. Ferguson. Capt. J. W. Boyd (Attached to 11th Field Ambulance.) Lieut. R. A. Connor. Lieut. G. H. Snell.

No. 2. Clinic at Wolseley Barracks, London: Capt. H. L. Windrim.

No. 3. Clinic at Windsor, Ontario: Capt. R. L. Clayton. Capt. R. S. Freele.

No. 5. Clinic at Listowel, Ontario: Capt. R. F. Taylor.

No. 6. Clinic at Stratford, Ontario: Capt. C. W. Hamilton. Capt. N. J. Hiscox.

No. 7. Clinic at Guelph, Ontario: Capt. W. H. Renwick.

Central Laboratory at London, serves the entire District.

A number of dentists have joined the Canadian Dental Corps, N.P.A.M. and are qualifying for Captain's rank.

Capt. and Mrs. Harold Windrim have announced the birth of a new nursing sister, Margaret Susan, for the C.D.C.

The personnel of the C.D.C. has been carefully selected and a well-trained, efficient group of N.C.O.'s and men ensures good services for the troops in the District.

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C.D.C. Ladies Auxiliary of M.D. No. 1

The Dental Corps Ladies Auxiliary of No. 1 Company, M. D. 1, was registered under the War Charity Act, March 20, 1940. The officers are: President, Mrs. Clement Windsor; Vice-president, Mrs. John Hutchison; Secretary-treasurer, Mrs. Frank Giffin; Press, Mrs. Rex Sykes.

The Ladies Auxiliary has held four meetings, and finances are looked after by donations from our dentists of the District, by a series of teas held by Auxiliary members, and a successful rummage sale.

On March 31 a tea was held at the Main Dental Clinic in London for the dentists and their wives from the District. About seventy-five were present.

On April 11 bridge was held at the Highland Golf Club for the purpose of letting members become better acquainted.

A Garden Tea is planned for June 12 at the home of Dr. and Mrs. Frank Giffin.

The Auxiliary has equipped the Clinic with curtains and blinds, also supplies paper cups for the Clinics and is sending cigarettes and newspapers to those overseas from this District.

The Committee is enthusiastic and hard-working, and the organization will do very valuable service, taking an interest in our men overseas and at home, and in supplying and supplementing army issues.

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Company Headquarters Kingston, Ontario

In connection with the opening of the new dental clinic at Barriefield, Lt.-Col. and Mrs. J. C. W. Broom and the officers of the Canadian Dental Corps and their wives entertained most delightfully at tea on April 28, 1940, in the Second Divisional Signals Officers' Mess.

The guests were received and welcomed by Lt.-Col. and Mrs. Broom and Lt.-Col. F. S. McPherson, Officer Commanding, Second Divisional Signals.

The guests were first shown through the clinic before going over to the Mess for tea.

The cosy mess-room presented a very attractive sight, and the long tea table was lovely with silver bowls of snap-dragon and tall matching tapers in silver holders. Presiding at the table were Mrs. Elroy Forde, Mrs. C. W. Devey, Mrs. J. L. B. Roop and Mrs. W. G. Preston. Miss Elizabeth Broom, Miss Carol Cays, Miss Jane Turner and Miss Helen Armstrong assisted in serving.

The guests included Colonel F. M. Lott, Officer Administering the Canadian Dental Corps, and officers of Corps Headquarters, Ottawa.

The clinic, modern in design, is housed in a white building near the military hospital at the big war camp. All equipment is collapsible and can be transported in compact form and set up anywhere for field use. It is a five-chair clinic with a staff of 18; has a waiting room for patients; orderly room; surgical room; x-ray machine; dark room; automatic hot water system and rest rooms for operators and staff.

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No. 4 Company Headquarters Montreal, Quebec

The following is a list of Dental Officers in this Military District: District Dental Officer, Major F. W. Saunders; Adjutant, Capt. J. A. Kerr; Quartermaster, Capt. H. D. Pennell, E.D.; Capt. H. R. Cleveland, Capt. H. V. Driver, Lieuts. R. E. McMahon, F. A. Edward, L. E. Kent, L. P. Reeves, G. Baillargeon, S. Cripps, M. Boulet, P. R. LaSalle, T. I. Guilboard, O. A. Lefebvre and R. A. Wheatley.

Posting: Capt. H. D. Pennell, E.D. (QM.) is posted to No. 6 Company, Halifax, N.S. Also, Lieut. E. C. Burbank is posted to No. 9 Company R.C.A.F., Ottawa, Ontario.

Proceeded overseas with the 1st Division Dental Company, five officers and eighteen other ranks.

M. D. No. 4 is quite proud of its fine Orderly Room organization and administration under the supervision of an Ex-R.C.D., QMS. (W.O. 11) Romeo Garault, who at the beginning of hostilities was attached to the C.M.S.C., at M. D. No. 4.

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No. 10 Company Headquarters Winnipeg, Manitoba

No. 10 Company had a church parade of its own on Sunday, May 5, attending the Crescent-Ft. Rouge United Church—about 35 strong. Everyone voted it a success and that our drill instruction certainly showed results. The O.C. read the scripture and a cheque from Corps funds was deposited on the plate.

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We start on our Anti-Gas Course, at Osborne Barracks, from 1600 to 1700 hours, Tuesdays and Fridays—all ranks.

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The Ladies Auxiliary is sending parcels this week to all our Overseas members — More Cheer.

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Dental Corp News—M.D. No. 12 Correction

On page 255 of the May issue of the Journal, under the heading "M.D. No. 12" appeared an item headed "Captain A. Gregory Smith", whereas it should be "A. Gregor Smith". Since then his promotion to Major has come through.

NEWS FROM THE PROVINCES

ALBERTA:

Edmonton Dental Society

At the May meeting of the Edmonton Dental Society, Dr. C. D. Husband, of Red Deer, gave a lecture and clinic on "Freshly Prepared Alkaline Local Anaesthetic Solution." The meeting was well attended and Dr. Husband's interesting paper and clinic were much appreciated.

Calgary Dental Society

The Calgary Dental Society held its April meeting at the York Hotel. After dinner the members adjourned to the Southam Building dividing into three groups, for the following clinics:

Indirect Inlays, Dr. R. R. McIntyre.

Cast Partials and Attachments, Dr. Jack Hesson.

Exodontia Chair Clinic, Dr. J. W. Clay.

SASKATCHEWAN:

Regina Dental Society

The Regina Dental Society held its annual election dinner in the Drake Hotel, April 9. The following officers were elected:—

President, Dr. H. J. Kennedy.
Vice-president, Dr. C. C. Clermont.
Secretary, Dr. D. M. MacFarlane.

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Graduation Exercises

Dr. A. E. Chegwin, as Chairman of the Board of the Moose Jaw General Hospital, ably presided at the Graduation Exercises of that institution held before a capacity audience in St. Andrews Church on May 10. The dental family was further represented by Miss Margaret Harwood who was President of the graduating class and Valedictorian.

MANITOBA:

Manitoba Dental Association

The Manitoba Dental Association is expecting to celebrate the Centennial of Dentistry as a profession on May 27-28. A special feature of the event will be a two-day demonstration of the Fournet-Tuller Technique for Lower Impressions by Dr. Harry A. Gilchrist, Professor of Prosthetic Dentistry in the University of Alberta. A dinner in the Fort Garry Hotel on Monday evening, the 27th, will be devoted to special addresses on the evolution of dentistry during the past century.

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Winnipeg Dental Society

The April meeting of the Winnipeg Dental Society was given over to reports of the members of the retiring Executive and its committees. These reports indicated a successful year's work, a slightly larger balance in the bank and 99 paid-up members.

The report of the Nominating Committee recommended the following Executive for the 1940-1941 season: President, Dr. Ben Toombs; Vice-president, Dr. Harvey Gorrell; Secretary-treasurer, Dr. Oswald Brown; Executive without portfolio, Drs. Bert Oja and Fred Brown, all of whom were elected without opposition.

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Winnipeg Student Honoured

Dr. Garth Merkeley, eldest son of Dr. H. J. Merkeley of Winnipeg, has been awarded one of the Frank Woodbury memorial prizes at the Dental School of Dalhousie University, where he was graduated this spring.

ONTARIO:

Ontario Dental Association Convention

The Ontario Dental Association held its convention on May 27th to 29th inclusive. On this occasion the Canadian Dental Association joined with Ontario who acted as host to over 800 Canadian dentists from all parts of Canada. The attendance including ladies, dental nurses and assistants, exhibitors and all other guests was nearly 1400 persons. The program was well arranged and President Dr. G. V. Morton can be justly proud of his efforts as director in chief.

In his President's address Dr. Morton reviewed the various activities of the Ontario Dental Association paying his tribute to those who had assisted him in his duties. He especially welcomed Dr. Arthur H. Merritt, President of the American Dental Association and Lt. Col. George Cameron, an honorary member of the British Dental Association and official representative of that body to this meeting. In reference to the fury of war in Europe he said, "It is difficult in these days to be cheerful, when our fellow Britishers and their allies are suffering bravely yet tremendously on our behalf; it behooves us who possess disciplined minds to remain calm and resolute even though we are passing through the worst days the world has known and this we will do in the face of the greatest odds." Continuing, he extended high praise to Col. F. M. Lott and those associated with him for their work in establishing the Canadian Dental Corps with its efficiency and perfectness of organization in such a short time. Finally he said, "This convention will, I am sure, provide for each of us a new inspiration and lead us to resolve to give our best to our profession and its various organizations to the end that we may render our best possible service in every field of activity." In conclusion he recited the quotation used by our beloved Sovereign in his Christmas message to our people,

> "I said to a man who stood at the gate of the year, 'Give me a light that I may tread safely into the unknown,'

and he replied, 'Go into the darkness and put your hand into the hand of God. That shall be to you better than light and safer than the known way.' "

American dentistry marks its one hundreth birthday this year and Canadian dentists celebrated the event at a centennial luncheon on the opening day of the convention. Arrangements were in charge of Dr. J. S. Lapp, director of the public relations committee of the C.D.A., and he presided. Dr. Arthur H. Merritt, President of the American Dental Association was guest speaker. Guests associated with him at the head table were—Lt. Col. S. A. Moore, President of the Canadian Dental Association and Pres. Elect Dr. W. W. Woodbury. Other prominent Canadian figures were Dr. G. V. Morton, Dr. Stanley Bagnall, Dr. Sydney Bradley, Dr. A. W. Ellis, Controller Dr. F. J. Conboy, Dr. Whytock, Dr. M. H. Garvin, Mr. Norman Sommerville, His Grace Archbishop Owen, Lt. Col. Cameron, Dr. Don Wilson, Dr. Duncan Graham, Dr. R. E. Mills, Dr. Faulkner, Dr. W. C. Oxner, Dr. Chas. Dixon, Dr. Harry Thomson and Dr. Harvey Agnew.

Dr. Lapp in his remarks indicated that it was just 100 years ago that the first dental school was established—"Baltimore College of Dental Surgery" at Baltimore, Maryland. In the same year the "American Journal of Dental Science," the first dental periodical was published and again in the same year the first dental society was organized and known as "The American Society of Dental Surgeons." All these enterprises were due to the efforts of Dr. Horace Hayden and Dr. Chopin Harris. Later in his address Dr. Lapp inferred that the profession of dentistry was now crossing the threshold of a new century. Much had been accomplished and the future challenged us. The dawn of the new century before us seemed somewhat dim. The horizon to the east was fogged with smoke of a terrible conflict into which the British commonwealth of nations had been drawn. "And in these trying days," he said, "it is difficult for us as Canadians and as a profession to enter into the spirit that normally should accompany such an occasion—the marking of 100 years of progress. We look at our colleagues in uniform here and realize they are in the King's service. We are proud of them and in our admiration pledge ourselves to their support. This is our task today."

Portrait by Paul Horsdal, Ottawa.

MAJOR IRA W. HAMILTON
Newly Elected President of Ontario Dental Association

The luncheon meeting of the second day was held under the auspices of the Canadian Dental Association. Some 600 members were addressed by Mr. Justice Gillanders, D.F.C., who chose as the theme of his address, "Our responsibility as citizens in a democratic nation." The speaker pointed out that violence and cruelty and lawlessness is foreign to our senses but let us not be too smug about these things and say, "it cannot happen here." Continuing, he said, "This is a day of great opportunity to serve. We may do our part in diverse ways, perhaps not beside our fellows in Flanders but we can find a vital duty at home if we have the will to do so. It is the duty of professional men to promote those principles of liberty, freedom, democracy or whatever you desire to call them—those principles we would preserve and now seek to defend in Flanders fields."

Lt. Col. Cameron, deputy director of the

Canadian Dental Corps, followed Mr. Justice Gillanders and gave an eloquent address entitled, "Professional responsibilities of individual members of the dental profession." The speaker indicated that our responsibilities are threefold—to our patients, the golden rule; to our colleagues, co-operation and not competition; to organized dentistry, work in your local, provincial and national bodies. Each has its specific sphere. Continuing, he said, "Canada today speaks as a nation, let dentistry do likewise. When we have national professional problems to deal with let us make sure that we are supporting a strong national organization to deal with them. Pool our resources and move forward with the motto—'Unity is strength.'"

Col. Frank M. Lott, officer commanding the Canadian Dental Corps, spoke informally and briefly, giving a few sidelights on the work of the corps. He indicated that the present set up of one dental officer to every 500 of our troops was proving to be slightly inadequate but pointed out that it was considerably better than in the last Great War when the ratio was one in 4000. The ratio for overseas Canadian forces is one dental officer for each 800 troops. Col. Lott indicated further that on the average new recruits had seven defective teeth per man, that 240,000 defects had been corrected to date. A complete dental corps unit was set up for inspection of convention visitors and this attracted wide attention because of its completeness and compactness.

Lt. Col. Moore, who presided at this luncheon, read his report as retiring president of the Canadian Dental Association in which he reviewed the various activities carried on during his term of office and as a past president of the Ontario Dental Association he appealed to his Ontario colleagues to take the lead in establishing a stronger national association, properly and adequately staffed, by indicating their willingness to increase their financial support to the Canadian Dental Association.

The scientific program of the convention was never better. Table demonstrations on the first morning numbered 126 and was sponsored by members of the association, dental nurses and assistants, and dental dealers and manufacturers. On two other mornings of the convention nineteen lecture clinics were given by members of the association and visiting dentists. During the open sessions Dr. L. R. Main of St. Louis, Mo. and Drs. L. W. Boyd, J. E. Schaefer and Geo. W. Teuscher, all of Chicago, who were guest essayists of the convention, presented splendid papers.

The public Dental Health Committee of the association presented a continuous program of lantern slides, motion pictures and sound pictures and distributed various pieces of literature available to Ontario dentists for public lectures. The committee also sponsored a dramatized dental health radio broadcast from the convention floor. It was entertaining and had considerable educational value.

Some of the highlights of the convention greatly appreciated by those attending were the Sunday evening reception for out of town visitors. A short musical program was provided and refreshments were served as acquaintances were renewed in this large dental family. Again the ladies' committee arranged a very delightful dinner and dance. His Honour, the Honourable Albert Matthews, Lieutenant-Governor of Ontario with Mrs. Matthews attended and received the guests with Dr. and Mrs. Morton. Hon. Dr. Cody, President of the University of Toronto, was guest after dinner speaker. A souvenir in the form of a brochure, "The Dental Story of the Dionne Quintuplets", by Dean Arnold Mason was presented to each member of the association. These and many other events almost too numerous to record made the 73rd annual convention an outstanding success.

New Officers of Ontario Dental Association

President—Major Ira W. Hamilton, by acclamation.

Past President—Dr. G. V. Morton.

President Elect—Dr. E. A. Grant.

Board of Governors—Dr. J. H. Duff, Dr. Frank Martin, Dr. G. V. Tario, and Dr. F. L. Williamson.

Kent County Dental Society

The Kent County Dental Society has just concluded a successful season, a summary of which follows:—

October—A very comprehensive presentation of the subject of Periodontia by the Periodontia

Section of the Detroit Clinic Club under the direction of Dr. E. R. Romine and five other members of the Section.

December—Dr. Irwin Ante, Full Denture Construction and Colour Photography in Dentistry.

February—Dr. Murray Campbell, Root Surgery; Dr. Telford Biehn, Otolaryngolygist of Sarnia — The Inter-relation between this Specialty and Dentistry.

March—Dr. Thos. Cowling, The Contribution of Chemistry and Metallurgy to Dentistry.

April—Dr. George Qua, Detroit, on the "Management of the Gold Inlay."

Officers for the ensuing year were elected as follows: Past President, Dr. Geo. W. Cornell; President, Dr. Chas. S. Lawrence; Vice-president, Dr. A. A. Hicks; Secretary-treasurer, Dr. F. K. Switzer; Councillors, Drs. W. H. Golloway and M. J. Hooley; Program, Dr. J. Murray Campbell; Entertainment, Dr. H. G. French.

QUEBEC:

Montreal Dental Club

At a recent meeting of the Montreal Dental Club Dr. James Coupland, of Ottawa, addressed the Club on the subject, Means for Minimizing Discomfort in Exodontia.

Dr. Coupland stated that the most unpleasant part of dentistry, from the patient standpoint, was just thinking about going to the dentist; in fact, it was actually worse than the operation itself, and that much of this misapprehension would be overcome by premedication. For children up to six years of age use ½gr., of nembutal, for adults, 1½grs., and in case of alcoholics increase the dose. In the hospitals these drugs are administered the night before an operation and such is good practice in dentistry as the patient is as likely to worry over dental operations as much as any other kind of operation. After these drugs have been given the patient should not drive his own car. Records should be kept of reactions for future reference.

Use small amounts of local anaesthetic rather than large amounts and select the most vulnerable location with care. A frequent mistake in making a mandibular injection is to go too deeply. The mandibular nerve is not more than 20 mm. from the surface. Inject slowly also, not more than 1cc. a minute. If this procedure is followed post-operative pain will be reduced to the minimum.

Post-operative pain is also related to the amount of force used. A pre-operative x-ray picture shows the problem involved and permits one to determine the exact procedure. If a tooth is fractured it is advisable to take another radiogram as this has a good psychological affect on the patient. The use of sutures helps to reduce post-operative haemorrhage and also encourages more rapid healing.

Mechanical trauma contributes chiefly to dry sockets. One dry socket occurs in every 46 simple extractions and 95 per cent of them occur in the lower bicuspid and molar regions. In the case of impactions pack the socket just as soon as the tooth is extracted, dressings to be continued for ten days. Irrigations with hot saline solutions are to be recommended and written instructions should be given the patient. In severe cases of extraction a full dose of codein should be given the patient.

In cases of acute infections local anaesthetics are contra indicated. Try to reduce the infection by drainage and irrigation. A good irrigating solution is made by adding three level tablespoonfuls of salt to a quart of water and boil the solution.

Many interesting x-ray slides were shown and the meeting was brought to a close by the Vice-president, Dr. Ken Carver.

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Mount Royal Dental Society

The Mount Royal Dental Society held its annual meeting in the Mount Royal Hotel on April 16, at which reports of the retiring executive were read, and officers for the session 1940-41 were elected.

The president, Dr. J. Persk, outlined in his report a comprehensive review of the activities of the Society, and gave many constructive suggestions for the next year.

Dr. A. S. Solomon was warmly congratulated and tendered a vote of thanks for his fine efforts in conducting, during the past year, his post-graduate groups in dental economics.

As part of the business of the evening, the Society voted to give its library to the McGill University Dental Faculty.

It was announced that Dr. Bass, of N.Y., a

past president of the Brooklyn King's County Dental Society, would give an afternoon and evening lecture to the Society on May 3. His subject will be "Dental Economics."

The newly elected officers are as follows:
President—Dr. I. N. Pesner
Vice-president—Dr. Louis J. Rosen
Secretary—Dr. G. Zimmerman
Treasurer—Dr. D. Muhlstock
Asst. Sec.-treasurer—Dr. A. Lapin
Members of Executive Committee: Drs. C. Finklestein; B. L. Hyams; A. S. Solomon; P. J. Gitnick; L. Eidinger.
Ex-officio—Dr. J. R. Persk.

As previously announced Dr. Samuel Bass, of New York, appeared before the Society on May 3. In the afternoon he presented an excellent table clinic on The Human Equation in Building and Retaining a Desirable Dental Practice.

In the evening, Dr. Bass delivered a lecture on the same subject which lasted almost three hours and had the complete attention of a full turn-out of the members. A particularly interesting feature was the answers to questions on dental economics which were submitted to Dr. Bass before the lecture by those present.

BRITISH COLUMBIA:

Vancouver Dental Society

The Prosthetic Club of the Vancouver Dental Society presented a most instructive clinic and papers on Immediate Dentures at the regular monthly meeting. Dr. G. S. McKenzie described the surgical preparation of the mouth, while Dr. J. A. Chambers' paper was Immediate Denture Servicing. Clinics were given on the method and technique of the extraction of the teeth, the trimming of the alveolar process and the insertion of the denture.

Of interest was a letter from Dr. Stuart Murray, senior officer of the Vancouver Metropolitan Health Committee, asking for the co-operation of the Vancouver Society in a survey of the school children of greater Vancouver. The last survey was in 1931. A committee was selected to carry out this very important plan because of its great worth.

The new officers of the Vancouver Dental Society are: President, Dr. L. F. Marshall; President-elect, Dr. J. S. Dawson; Secretary-treasurer, Dr. A. E. Martin; Board of Sensors, Drs. G. D. Stibbs, L. G. Robinson, J. A. Chambers and E. G. Bryant.

EMPIRE NEWS

GREAT BRITAIN:

Account Squared

Mr. H. Gordon Selfridge, speaking at a luncheon given in his honour in London recently, recalled one of his earliest adventures in business. As a boy, he and a friend, equally precocious, started a monthly magazine. He was the business manager and obtained from the local dentist a 25-cent advertisement, but failed to collect the money. In order that the firm should not be the loser, he squared the account by getting the dentist to extract a perfectly sound tooth, "which," said Mr. Selfridge, "I miss to this day."—*D. Mag. & Oral Topics.*

AUSTRALIA:

Dental Hygiene in New South Wales

In the annual report of the New South Wales Branch of the Australian Dental Association, it was interesting to note the activities of the Dental Health Education Department. Fifty-four lectures and 459 broadcasts were delivered. An active part was taken in the Health Week Campaign, the Newcastle Health Week and the Tenth Australian Dental Congress. Five essay competitions in the State of New South Wales were organized, resulting in 4,380 entries. In addition, there were two poster competitions. Prizes totalling £76 were awarded by the Department. Publication of 15,000 copies of the booklet, "Healthy Mouths" was undertaken and various articles of an informative nature were published in selected periodicals.

NEW ZEALAND:

Social Medicine in New Zealand

The Dominion of New Zealand, with just over one million people, is giving the world an interesting experiment in "socialized" or

state controlled medicine. The state, through its department of health, controls almost every function demanded of a public health service.

The most noteworthy feature of the system concerns the administration of the social security act of 1938. This makes provision for medical and hospital treatment and for "such other benefits as may be necessary to maintain and promote the health and general welfare of the community." The principal classes of benefits provided comprise medical, pharmaceutic, hospital and maternity benefits. Supplementary benefits contemplated include specialist and consultant services, radiologic and laboratory services, home nursing and domestic assistance and dental services.

Hospital and maternity benefits are now in operation. Benefits are available to all persons ordinarily resident in New Zealand without regard to race, nationality or economic status.

A special division of the department undertakes the dental treatment of school children. It is staffed by dental surgeons who are responsible for the administrative and instructional side and by dental nurses specially trained by the department, who undertake the actual treatment. The work is concentrated on children whose ages are from 5 to 8 years. The attendance of children under school age, however, is encouraged.

Three hundred and twenty-four clinics have been established. Each clinic deals with children of certain schools in the vicinity, and these are organized into a "dental group," the local administration of which is in the hands of a dental clinic committee composed of local residents. Besides undertaking various duties in connection with local administration, these committees have to undertake the task of raising funds to meet a certain proportion of the cost of operating the clinics. Treatment of the children in the clinics is carried out by the school dental nurses. There are some 1,600 schools linked up with this service and 94,000 children are now under dental supervision.

The object of the "milk-in-schools" scheme is to make available to all school children in the Dominion, a half pint of pasteurized, bottled milk on each school day. The milk is provided free of cost to the children, and the acceptance of the milk by the child is entirely voluntary. Two alternative schemes, the supply of malted milk powder or the supply of milk for cocoa-making purposes, are offered to schools when it is found impracticable to extend the pasteurized bottle milk supply owing to areas of isolation and scattered school population presenting insuperable difficulties. The scheme has progressed to a point where milk is now available to some 220,000 children. Medical and educational authorities testify to the good effect of the scheme on the children. —*Condensed from Jour. A.M.A., A.D.A. Release.*

GENERAL NEWS

Dentistry's Social Responsibilities How Are They to be Met?

Message to the American Dental Association by its President

The thought probably uppermost in the mind of the dental profession at present is: How can the incidence of dental diseases be curtailed and the service which it alone is able to give be more widely distributed?

The profession has conducted a country-wide program of education in the belief that ignorance as well as indigence is responsible for many of the dental ills complained of by those who undertake to speak for the 75 per cent who are said to be in need of dental care. This would seem to be confirmed by the published statement that 35 per cent of the public with incomes of $1,000 a year or less "own and drive an automobile." There can be little doubt in the minds of those familiar with the situation that it is ignorance of the importance of dental care, quite as much as inability to pay, that explains the present widespread neglect. It has been shown that when such treatment can be had, almost for the asking, those for whom the service was intended did not avail themselves of it.

While continuing to give of its service to those unable to pay for them, the dental profession is of the opinion that one of its first duties is to educate people to the importance of dental care (especially preventive care), in

the belief that those able to provide for their own needs (which, doubtless, represent a considerable number) should be encouraged to do so. Some form of insurance or prepayment plan should be worked out to meet the needs of those in this group who may require such assistance. This should not be a difficult problem.

Further, the profession, as represented by the American Dental Association, is on record as being prepared to co-operate in any governmental plan to provide dental care for the indigent, asking only that it be consulted in the formulation of such plans and that they be fair to all concerned.

The care of the medical and dental indigent is largely a responsibility of the state. It is no more the duty of the medical and dental professions to provide medicodental care for the indigent than to provide such care for any other group of citizens. If they are to be cared for in these respects, it should be at the expense of all the people, not of a small fraction of them. Likewise, it is not the responsibility of either the state or the professions to provide free medical or dental care for those of our citizens who can, and should, provide for their own needs. To do so tends to rob them of their self-reliance (if not their self-respect) and encourages dependence on outside agencies. It is too often true that "the highest price you can pay for a thing is to ask for it." It is this aspect of the problem that is opposed by the health service professions, not proper care of the indigent, which is clearly a responsibility of the state, and one in which the dental profession (and I believe the medical profession also) is prepared to co-operate to the fullest extent.

The responsibility of the dental profession, therefore, would seem to be:

First, to seek, by every means at its disposal, to limit the incidence of dental disease by research.

Second, to continue in its efforts to educate the public to the importance of oral health and the ways and means by which it can be obtained.

Third, to co-operate with the government or any other responsible agency in any reasonable effort that is made to provide dental care for the indigent.

Fourth, to oppose to the full extent of its resources every project to provide dental care for the public that is not in the interest of all the people.—*Arthur H. Merritt, A.D.A. News Release.*

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Proceedings of the Dental Centenary Celebration

The proceedings of the Dental Centenary Celebration held in Baltimore in March will be published in a book of approximately 800 pages containing all information relative to the Centenary.

It will carry the entire history of the Centennial Celebration, including the state and local society dinners, radio broadcasts, public health talks during the Centennial, all scientific papers complete, general sessions, visual educational program, historical exhibits and an account of all activities incident to the Centennial.

Price $5.00; payable to Dental Centenary Committee, 815 Medical Arts Building, Baltimore, Maryland, U.S.A.

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The Passing of General Matthews

It is with great regret that we have to announce the death of Major General H. H Matthews, C.M.G., D.S.O., Adjutant General, Department of National Defence, Ottawa. He was Chairman of the Military Committee on Reorganization of Dental Service in Canada and was of very great assistance to the Dental Committee.

Our C.D.A. President, Lt.-Col. Stephen A. Moore, sent the following message to Ottawa:—

"Department of National Defence,
Ottawa, Canada.

Canadian Dental Association learns with regret passing of General Matthews and extends to family and friends sympathy of our officers and members. Our Association has lost a sincere friend who was of invaluable assistance in directing the reorganization of the dental services for the Defence Forces.

(*Signed*) STEPHEN A. MOORE,
President."

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New Dean for Illinois Dental College

The appointment of Dr. Howard M. Marjerison, Dean of Tufts College Dental School in Boston, as dean of the University of Illinois College of Dentistry, to succeed Dean Freder-

ick B. Noyes, was announced recently. The appointment becomes effective September 1 when Dean Noyes retires after 14 years of service as dean of the College of Dentistry.

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Canadian Orthodontist Honoured

Dr. George W. Grieve has been recently honoured by the American Board of Orthodontics at its annual meeting in Chicago on May 15th. Dr. Grieve was the unanimous choice for the Albert H. Ketchum memorial award for 1940. A further account of this recognition of Dr. Grieve's work will appear in July issue of this journal.

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C.D.A. Officers

The House of Delegates of the Canadian Dental Association convened in the Royal York Hotel, Toronto, May 22-24. The following officers were elected for the ensuing year:—

President—W. W. Woodbury, Halifax, N.S.

President, Elect—A. L. Walsh, Montreal, Quebec.

Chairman of the Board—R. A. Rooney, Edmonton, Alberta.

Sec.-Treas.—J. S. Bagnall, Halifax, N.S.

The following committee chairmen were also appointed:—Legislation—S. W. Bradley, Ottawa, Ont.; Dental Health—A. E. Higgins, Toronto; Research—A. J. McDonagh, Toronto; Education—Eudore Dubeau, Montreal; Canadian Dental Corps—Felix French, Ottawa; Public Relations—J. S. Lapp, Toronto; Indian Affairs—H. W. MacDonald, Saint John, N.B.; Necrology—J. S. Bagnall, Halifax; Ethics—D. W. Gullett, Toronto; Nomenclature—D. P. Mowry, Montreal; Finance Committee—F. A. Blatchford, Fort William (Chairman), J. K. Carver, Montreal, and L. J. D. Fasken, Regina; Journal Committee—G. Vernon Fisk, Toronto (Chairman), C. H. M. Williams, Toronto, and Armand Fortier, Montreal; Dental Examinations—A. E. Higgins, Toronto; Health League of Canada—R. D. Thornton, Toronto.

The reports presented at this meeting will appear in a later issue of the Journal.

IN MEMORIAM

Clarence L. Brady, of Simcoe, Ontario, aged 43, died suddenly April 25. He was well known in military circles in Ontario. He served overseas in the First Great War and afterwards was active in the Norfolk Regiment with which he held the rank of major. Dr. Brady was also active in the Canadian Legion.

Full military honours were accorded Dr. Brady. Members of the 25th (Norfolk) Field Brigade, R.C.A., attended the final rites under the commanding officer, Col. P. L. Park. In addition, a number of members of the Canadian Legion and Army and Navy Veterans' Association, of Simcoe, were in attendance.

The Last Post and Reveille were sounded at the graveside by Trumpeter Sergt. Harry Black.

Thomas Robertson, of Prince Albert, Saskatchewan, aged 68, died in Regina May 1.

He was born in Prince Edward Island and came to Western Canada in 1904. He practised in Edmonton and Lloydminster before establishing a practice in Prince Albert in 1909. He served in the C.A.D.C. during the Great War and afterwards resumed practice in Prince Albert. He was dental surgeon to the Saskatchewan Penitentiary for a lengthy period, was a former alderman of the City and an honorary member of the Board of Trade. He was, for several years, also, President of the Federal Liberal Association in his constituency. In 1935 he was appointed Inspector of Indian Affairs for Saskatchewan, and took a keen interest in his Department and the people to whom it ministered.

Dr. Robertson is survived by his widow, one daughter, and a sister. Interment was in the Regina Cemetery with old friends from Prince Albert acting as pall-bearers.

. . . SECTION FRANÇAISE . . .

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La Stomatite de Vincent
*n'est pas contagieuse**

par ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.

Ma communication d'Avril dernier m'a suscité des critiques aussi inattendues qu'amicales et intéressantes. Les lettres élogieuses que j'ai reçues m'ont été très agréables parce qu'elles sont une signe sensible de l'amitié que me portent leurs auteurs et une compensation pour les quelques services que j'ai pu rendre à ma profession. Mais on y a exagéré mes mérites. Ce travail forcément incomplet n'est en somme qu'un résumé de ce que ma mémoire a pu me rapporter sur le sujet. Il ne contient aucune innovation, aucune découverte importante et quelques constatations personnelles.

Néanmoins, il en est une phrase qui a grandement bouleversé un de mes confrères américains, la voici: "Ainsi je ne crois pas à la contagion possible, en tous cas chez les sujets confiés à mes soins, je n'ai jamais pu établir l'évidence de la contagion". Et pour appuyer ma prétention, je citais cette affirmation du Dr E. Agasse Lafont, chef de clinique et de laboratoire à Paris: "On a d'ailleurs été frappé par l'absence de contagion de cette maladie et de l'impossibilité d'inoculation sur les tissus sains. Aussi semble-t-il qu'elle ne se développe que dans les tissus altérés et de moindre résistance, etc."

Je vous avoue qu'après la lecture du plaidoyer de mon aimable et intéressant contradicteur, en relisant mon propre texte, j'ai eu un moment de doute sur ma propre affirmation. Pourtant après réflexion et considération attentive des deux textes, j'eus la

* Si malgré ma grande conviction, et la bonne compagnie, il arrivait qu'on prouvât le contraire, je m'inclinerai volontier. A. T.

certitude que la contradiction était plus apparente que réelle. Si par une argumentation serrée on arrive à une conclusion contraire à celle que nous impose brutalement les faits, c'est qu'il y a quelque chose de défectueux dans le raisonnement. Il faut recommencer, vérifier l'exactitude des prémisses et s'assurer ensuite si la conclusion qu'on en a tirée, en découle clairement, et surtout qu'elle est la seule logique.

Dans le cas qui nous occupe, la valeur du Dr Lafont, comme bactériologiste, ne peut être mise en doute, donc il y a tout lieu de croire que ses expériences ont été bien conduites. Il n'est d'ailleurs pas le seul témoin. Or, il affirme qu'il est impossible d'inoculer le bacille de Vincent sur des tissus sains. Quels que soient nos raisonnements, il faut donc en venir à la conclusion que cette affection n'est pas une maladie contagieuse proprement dite. Si l'on procède par comparaison on verra qu'il n'en est pas ainsi de la typhoïde, de la rougeole, etc. L'inoculation du bacille d'Eberth ne manque pas son coup et quelque soit la résistance d'un sujet, s'il n'est pas immun, elle sera vaincue et la maladie fera inévitablement son apparition. Dans le cas de la tuberculose, l'inhalation à doses minimes de bacilles de Koch ne passera pas inaperçue et le sujet aura une réaction qui finira par produire une allergie relative. Au contraire si les doses sont trop considérables, le contaminé n'aura pas le temps de développer sa résistance et fera une tuberculose massive fatale.

Il est reconnu en médecine que pour déclarer qu'une maladie est contagieuse, il faut que son germe spécifique engendre dans un organisme sain non immunisé, une affection analogue à celle qu'il a déterminée chez le malade. Or, il n'en est pas ainsi de l'infection de Vincent proclament les bactériologistes et nombre de cliniciens. Donc ce n'est pas une maladie contagieuse. Alors comment l'infection de Vincent se propage-t-elle si elle n'est pas contagieuse? C'est bien ici que se trouve la confusion apparente des faits et de la théorie. Qu'elle ne soit pas contagieuse dans le sens de mes explications antérieures, j'ai l'impression que mes lecteurs commencent à l'admettre un peu, mais restent perplexes quand même. Car, il n'en pas moins vrai que les faits prouvent aussi que cette maladie ne germe pas spontanément chez un individu, mais se développe après l'absorption du bacille de Vincent. C'est tout simplement que cette maladie est transmissible, communicable, mais pas infailliblement à chaque fois qu'il y a contact entre un porteur de germe et un autre. C'est le sujet lui-même, qui par l'état pathologique de ses tissus buccaux rend la contamination possible, et non une propriété particulière du bacille de Vincent. Le sujet sain rend le bacille inoffensif, l'autre le cultive et l'exalte. Il n'en est pas ainsi des maladies aujourd'hui classées comme contagieuses. La nature de leurs microbes est de s'implanter chez des sujets sains et de vaincre leur résistance.

Alors, m'objectera-t-on, si je bois dans un verre dont les bords sont souillés par un porteur de germes, je ne risque pas de contracter la maladie? Peut-être; tout dépendra de votre propre état de résistance. Ce ne sera pas l'addition de quelques bacilles à ceux que vous avez déjà dans la bouche qui changera quelque chose, car ne l'oublions pas l'association fuso-spirillaire est constante dans la bouche des adultes. Les microbes pris sur le verre sont de la même nature que les vôtres, et ne feront qu'ajouter au nombre de vos pensionnaires; sed periculô non vacat, dirait St-Thomas, car la virulence du microbe emprunté, peut bien être exaltée et si vos gencives sont déjà affectées par d'autres agents pathogènes, pyorrhée, gingivite, éruption vicieuse d'une dent de sagesse etc., le nouveau venu s'y implantera et l'infection de Vincent se superposera à la première affection. Si au contraire votre milieu buccal est physiologique, la virulence des nouveaux microbes s'atténuera et ils deviendront inoffensifs comme ceux qui l'habitaient déjà. Et l'on ne conclura pas, je l'espère, que ma thèse proclame l'inutilité de toute précaution.

Toutes les maladies d'origine microbienne ne peuvent pas être classées parmi les maladies contagieuses. Autrement il faudrait conclure que le furoncle, l'angine de Ludwig, la pelade, etc. etc., en sont, car il est admis que ce ne sont pas des cas de

génération spontanée et que les germes de ces maladies ont été contractés quelque part.

Si l'on avait conservé au mot contagion, son véritable sens étymologique (cum avec, tagere toucher), il n'y aurait pas aujourd'hui cette confusion dans les esprits. On en a tellement élargi la signification, qu'aujourd'hui on appelle contagieuses, certaines maladies où le contact ne paraît rien avoir à faire, telles certaines endémies, la grippe, la paralysie infantile, etc. etc.

J'ai même lu quelque part que certaines folies sont "contagieuses" et que la mode en serait un exemple.

Il semble qu'aujourd'hui on appelle exclusivement contagieuse, toute maladie susceptible de se développer chez n'importe quel sujet sain, non immun, atteint de son microbe, et capable de prendre une forme épidémique. Or, il n'en est pas ainsi de l'infection de Vincent et de beaucoup d'autres affections de ce genre. Ce sont simplement des maladies infectieuses susceptibles de transmission, mais dans des conditions spéciales de contact et de réceptivité. Avec les bactériologistes, j'ai accepté l'impossibilité de la contagion. Mais, je suis tout de même reconnaissant à mon correspondant de m'avoir fait comprendre que j'eus tort, dans ce travail que je croyais trop long, d'omettre détails et témoignages; et en plus de me fournir l'occasion de donner quelques précisions sur l'étiologie et le traitement de la Stomatite de Vincent.

Aux explications que j'ai données plus haut, j'ajouterai donc ce qui suit: Il ne faut pas oublier que si l'association fuso-spirillaire est très répandue à l'état saprophytique, ses manifestations pathologiques sont relativement peu fréquentes. En outre la symbiose de Vincent existe ailleurs que dans la bouche de l'homme; on a pu la reproduire chez le lapin cachectisé. Elle n'apparaît jamais dans la bouche du nourrisson et elle est constante dans celle des adultes. Il est tout probable qu'elle est d'origine tellurienne puisqu'on l'a trouvée dans les eaux stagnantes (Uhlenhuth et Zeulzer) et dans les boues (Inada). C'est peut être l'explication de la fréquence de cette maladie dans certains états américains au moment où les légumes frais abondent et les jeunes s'abreuvent d'une façon exagérée de toutes ces liqueurs débilitantes si répandues dans ce pays.

H. Violle attribue l'infection de Vincent en Orient et en Afrique à la mauvaise hygiène alimentaire et buccale de ses habitants.

Galippe ne voit pas de stomatite de Vincent possible sans les dents et le bord libre des gencives qui les entoure. Nous verrons plus loin qu'il n'est pas le seul.

R. Le Blaye professeur à l'école de médecine de Poitiers, affirme: "Les conditions hygiéniques jouent leur rôle dans cette fréquence, les maladies étant plus communes chez les individus peu soucieux de leur hygiène buccale et alimentaire ou en état de carence (scorbut).

Ce qui prouve que cette affection n'est pas si grave par elle même, c'est qu'elle existe rarement seule. Elle se présente généralement comme une complication, ou une infection secondaire.

Delamarre observe: "que l'épidémicité occasionnelle tient en général, moins à la virulence des spirochètes qu'à celle des germes qui occasionnent leur prolifération anormale (virus filtrant grippal etc.)"

Le Blaye pose les conditions pour que cette maladie se développe "1o une flore constituée par des spirochètes et un bacille anaérobie capable de digérer les tissus. 2o. Un terrain à vitalité diminuée par des causes locales et générales."

Et P. Gastinel n'hésite pas: "l'infection fuso-spirillaire n'est pas une maladie primaire".

Jacques Puig dans la Presse Médicale de 1924 nous rappelle l'opinion ancienne du caractère épidémique et contagieux de cette maladie puis il ajoute: "la symbiose (de Vincent) n'est pas spécifique de la lésion puisqu'on la retrouve dans les lésions gingivales du scorbut, dans la stomatite mercurielle, dans le noma, la pyorrhée alvéolaire, partout où il y a lésion nécrotique des tissus". Plus loin il nous dit encore:

"l'inoculation simple est toujours négative; l'affection n'est pas contagieuse. Les très nombreuses inoculations, tentées sur des sujets sains, par Vincent et ses continuateurs sont toujours restés sans résultats."

Dans le cas de l'angine de Vincent dont le siège est toujours les amygdales et les lésions, presque toujours, unilatérales; il y a lieu de croire que l'affection ne s'avère pas contagieuse puisqu'elle ne se communique pas de l'une à l'autre.

Ruault qui décrit l'angine en 1894 dit: qu'elle ne diffère pas par sa nature de la stomatite ulcéro-membraneuse.

Campell et Dyas ont pu observer pendant la guerre de 1914-18 des épidémies d'angine chancriforme qu'ils ont appelées trench mouth, mais peut-être ont-ils oublié d'observer suffisamment les conditions misérables de la vie des tranchées et des casernes, de l'alimentation et de l'hygiène buccale.

Courcoux et Debré; David et Hecquet et d'autres observateurs ont signalé qu'il n'y avait pas de lien entre ces manifestations d'une recrudescence à allure épidémique.

Laveran (dit Puig) fait observer que ces pseudo-épidémies frappent les jeunes soldats d'un régiment mais ne franchissent jamais les murs de la caserne et n'atteignent pas la population civile.

Notons bien que la plupart des auteurs signalent que les maladies sont presque toujours de jeunes sujets, c'est-à-dire à l'âge où les troisièmes molaires font leur apparition et avec la difficulté que nous connaissons. Même Ruault en 1894, alors qu'on croyait dur comme fer à la contagion, parle de sujets de 19 à 20 ans. Il apparaît donc expérimentalement et cliniquement que l'angine de Vincent, et il n'y a pas de raison pour qu'il en soit autrement dans la stomatite, ne se transmet pas de muqueuse à muqueuse, qu'elle n'est pas une affection primaire, qu'elle n'est pas contagieuse. Le rouget de porc, cette maladie érysipéloïde n'est pas, que je sache, contagieuse et cependant on m'a rapporté un cas de contamination à travers un pantalon suffisamment trempé du liquide contaminé pour ouvrir les pores de la peau.

Evidemment, je n'oserais pas me frictionner les gencives avec le putrillage d'une bouche de malade parce que je ne suis pas certain de mon propre état physiologique, mais, appliqueriez-vous sur votre épiderme scarifié, l'exsudat d'un furoncle?

Chercher l'occasion qui a permis l'implantation de l'infection de Vincent, c'est trouver le remède. Il est bien inutile de perquisitionner en dehors du sujet, car ce qu'il faut découvrir, c'est la cause de l'amoindrissement de la résistance des tissus. Trouvez-la, supprimez-la et le malade guérira. Théoriquement et cliniquement il doit en être ainsi car la symbiose en contact avec des tissus sains ne peut subsister à l'état virulent.

J'ai parlé d'avitaminose dans ma première communication. C'est un des principaux facteurs de la diminution de la résistance des tissus. David et Hecquet observèrent de ces pseudo-épidémies pendant la guerre, en Roumanie. Ils accusent l'insuffisance de la nourriture, son uniformité et surtout l'abus des conserves; ils nient la contagiosité et l'épidémicité.

Il n'y a pas bien longtemps, un bulletin médical affirmait que dans l'armée américaine aussi bien que dans la marine, on ne trouve plus que des cas isolés d'infection de Vincent, depuis que l'on fait prendre du jus de citron aux soldats. A mon avis c'est une preuve nouvelle que cette maladie n'est que secondaire. Le citron n'est certainement pas un remède spécifique de la symbiose fuso-spirillaire, mais par contre il fournit les vitamines C qui guérissent du scorbut ou le préviennent et la fameuse trench mouth disparaît d'elle-même, ou ne peut s'implanter.

Qu'on se rappelle donc les descriptions faites par Jacques Cartier de la terrible maladie qui envahit ses matelots, comment ils mouraient et comment les sauvages guérirent les survivants en leur faisant manger des bourgeons de je ne sais quel arbre ou quelle plante. Il ne fait pas le moindre doute que ce scorbut résultant d'une avitaminose alimentaire était compliqué de toute la flore fuso-spirillaire. Et comme

traitement? comme dans l'armée américaine: des vitamines C pour faire disparaître la maladie primaire.

Donc il ne faut jamais oublier de s'enquérir du régime alimentaire de nos patients et même si les réponses paraissent satisfaisantes, je n'hésite pas à recommander les jus de fruits.

Mais, si dans des conditions de moindre résistance, les tissus subissent en plus l'irritation d'une éruption vicieuse de la dent de sagesse, non seulement il peut y avoir angine ou stomatite de Vincent, mais aucun traitement ne réussira définitivement si cette dent n'est pas enlevée. Même en pleine évolution de la maladie? Eh bien! oui en pleine évolution, mais non sans d'infinies précautions de détersion au moyen d'antiseptiques appropriés. Autrement ce serait le cercle vicieux, et il n'y a pas à dire il faut faire disparaître la cause. Ajoutons en passant qu'après une telle intervention, il faudra d'abondantes et fréquentes irrigations d'eau bouillie et chaude. En ce cas rien de mieux que des solutions sulfamidées. Vous risquez de faire disparaître l'agent de la lésion primaire et de voir votre malade guérir très rapidement.

Notons aussi qu'une seule languette recouvrant impunément depuis des années, une face triturante de troisième molaire peut devenir le réceptacle de l'infection et nécessiter l'extraction de la molaire si la maladie ne veut pas céder.

Répétons que dans les cas bénins, le bleu de méthylène, les perborates, etc., peuvent suffir à enrayer les premières atteintes. Seulement il arrive parfois que les topiques même arsénicaux, n'atteignent pas la lésion, soit à cause de l'épaisseur de la salive ou de la couche gangrenée, ou encore, et plus certainement, parce que les spirochètes sont enfouis dans l'épaisseur des tissus non nécrosés.

Alors le cas est plus avancé et nécessite une intervention énergique. Le Norvasénobenzol et les autres produits similaires, depuis Erich, sont devenus l'arme par excellence en injections intra-veineuses. Si le sujet est débilité, il sera prudent d'y aller à petites doses, de 0.25 à 0.30 cg. D'ailleurs c'est au médecin que je confierais cette tâche. Si par hasard on se trouve en face d'un cas d'arséno-résistance, on aura recours au bismuth. Mais, si le cas semble vouloir résister, ou récidiver, il ne faudra pas oublier ce que j'ai dit aux deux paragraphes précédents.

Me permettra-t-on de profiter de l'occasion pour réparer un injuste oubli de ma première communication. En effet, c'est le docteur Lorenzo Jutras, chef de laboratoire de l'Institut du Radium et de l'Institut Bruchési, qui par ses recherches justifia le diagnostique posé par le docteur Charles Bertrand dans le cas d'actynomicose que je vous ai rapporté. A ces deux collaborateurs, mes remerciements.

La Société Dentaire de St. Hyacinthe

par YVES LaFLEUR, Secrétaire.

Rapport des activités de mars 1939 à mars 1940

La Société Dentaire de St. Hyacinthe continue d'être une des plus actives de la province. De mars 1939 à mars 1940, il y a eu huit assemblées régulières. En plus de cela, deux comités nommés pour mener à bonne fin des tâches spéciales, ont tenu eux aussi plusieurs réunions.

L'événement le plus saillant de l'année pour la Société, a été la Semaine d'Hygiène Dentaire, dans la ville de St. Hyacinthe. Pour assurer l'élaboration et la mise à exécution du programme que comporte l'organisation d'une telle entreprise, tous les membres de la Société se sont dévoués sans compter. Avec des ressources financières plutôt restreintes, la Société Dentaire a tout de même réussi à exposer au public, tout en restant dans les limites de l'étiquette professionnelle, l'importance de l'hygiène dentaire et les moyens à prendre pour s'en assurer la possession et la sauvegarde.

La Société Dentaire s'était assuré la collaboration des autorités religieuses, civiles et scolaires, et les représentants de ces diverses puissances se sont montrés des mieux disposés envers la profession dentaire et envers le mouvement de propagande d'hygiène dentaire. Les curés des diverses paroisses de la ville ont eu la bonté de parler de la Semaine d'Hygiène Dentaire du haut de la chaire. Les autorités nous ont donné leur approbation et les autorités scolaires nous ont accordé toutes les facilités voulues pour aider aux examens des bouches des écoliers. Les journaux locaux nous ont donné une grande publicité dans leurs colonnes. Les pharmaciens et les magasins à rayons ont fait leur part en faisant des étalages spéciaux de tous les produits nécessaires à l'hygiène de la bouche.

De plus, grâce à la courtoisie d'un citoyen convaincu, nous avions dans une des vitrines de son magasin, l'un des mieux situés du quartier des affaires, un bel exhibit de matériel éducatif d'hygiène dentaire: chartes éducatives, radiographies illuminées, maquettes de dents saines et cariées, devises, etc.

Les dentistes consacrèrent trois avant-midis durant la Semaine à faire l'examen des dents et de la bouche d'environ 1000 écoliers et écolières.

Il y eut au cours de la semaine une séance éducative et récréative, sous les auspices de la Société Dentaire, et à laquelle le public était invité. Environ 500 personnes assistaient à cette soirée. Une conférence sur l'hygiène dentaire fut donné par le docteur Gérard Plamondon. Il y eut ensuite projection de films éducatifs et de films amusants.

Un autre événement intéressant, ce fut le dîner-causerie de la Société Dentaire, au début de novembre. Au-delà de vingt dentistes venus des Trois-Rivières, de Drummondville, St. Jean Qué., de Québec même, nous honoraient de leur présence. Après un excellent dîner servi au Grand Hôtel, le groupe se transporta au Club Mascoutain, endroit habituel des réunions de la Société, pour y entendre une conférence du Capitaine docteur Lucien P. Reeves, de Montréal, qui avait pris pour sujet: Chirurgie buccale, Anesthésie et Radiographie. Le tout était accompagné de projections de plaques et de films.

Les membres de la Société Dentaire se proposent de prendre une part active au congrès des Trois-Rivières, au mois de juin prochain, et ils espèrent y rencontrer des confrères de toutes les parties de la province.

Les officiers de la Société Dentaire de St. Hyacinthe élus au mois d'octobre 1939, et actuellement en fonction sont: Le Président; le docteur A. Bédard; Le vice président: le docteur Laurent Deslauriers; Le trésorier: le docteur Hyacinthe Breton; Le secrétaire: le docteur Yves Lafleur.

La Société Dentaire de St. Hyacinthe est toujours disposée à correspondre avec les membres de toute autre société dentaire ou avec tout dentiste intéressé à correspondre avec elle. La Société est aussi prête à travailler de toutes façons avec les autres groupes pour le plus grand bien de la profession dentaire en général.

84 rue Mondor, St. Hyacinthe, P.Q.

Les Responsabilités de la Profession Dentaire Envers la Société

par YVES LaFLEUR, D.D.S.

Dans le numéro d'avril 1940 du Journal of the American Dental Association, il y a comme chaque mois le message du président de l'Association Dentaire Américaine, le docteur Arthur H. Merritt, de New-York. Le message de ce mois-ci est des plus importants.

En effet, le docteur Merritt y pose une question à laquelle il est absolument nécessaire que la profession dentaire réponde aussi catégoriquement que possible. "Dans quelle mesure est-il possible d'enrayer les ravages de la carie dentaire et quels sont les moyens à prendre pour assurer une meilleure répartition des services de santé buccale que seule la profession dentaire est capable de donner au public."

Voilà sans doute un vieux problème qu'on n'a pas encore résolu. Et après de multiples enquêtes, on en revient toujours à la conclusion que le grand remède c'est de travailler à la prévention de la carie dentaire. Il appert que l'ignorance et le manque de ressources financières sont les causes premières des troubles dentaires dont souffrent 75% de ceux qui, d'après certaines autorités, ont un besoin urgent des soins de la profession dentaire.

Là où les opinions diffèrent, c'est sur les méthodes à employer pour atteindre à une distribution plus équitable des services dentaires. Depuis quelque temps, aux Etats-Unis, il se fait une campagne en vue d'un vaste programme d'hygiène publique médicale et dentaire subventionné en tout ou en partie par l'Etat. Le projet se présente sous différentes formes: assurance-maladie, volontaire ou obligatoire, assurances sociales, cliniques collectives subventionnées par le gouvernement. Sous des apparences trompeuses, ces projets cachent assez souvent des tentatives mal déguisées de socialisation de la médecine et de la dentisterie.

Ce qu'on semble reprocher le plus aux professions dentaire et médicale, c'est le fait que leurs services ne sont pas à la portée de la classe la plus pauvre de la population et qu'apparemment c'est cette classe qui en aurait le plus besoin. Tout en étant prête à collaborer avec l'Etat pour assurer aux indigents les soins dentaires appropriés, l'Association Dentaire Américaine n'est aucunement disposée à abandonner à l'Etat la direction de la profession dentaire. Voici d'ailleurs le texte même du message du docteur Merritt, traduit aussi bien que possible:

"C'est à l'Etat qu'il incombe d'assurer aux indigents les soins médicaux et dentaires dont ils ont besoin. Il n'entre aucunement dans les devoirs des médecins et des dentistes de fournir gratis soins médicaux et dentaires aux indigents ou à aucun autre groupe de citoyens. Puisqu'on a le devoir de prendre soin des indigents, que ce soit aux dépens de tous les contribuables, non pas aux dépens des seuls médecins et des seuls dentistes. Encore moins n'entre-t-il pas dans les attributions des médecins ou des dentistes de fournir gratuitement soins médicaux ou dentaires à ceux de nos concitoyens qui sont en mesure de pourvoir à leurs propres besoins. C'est surtout cet aspect de ces soi-disant lois sociales d'hygiène dentaire (et médicale) qui suscite l'opposition de la part de la profession dentaire. Quant aux soins dentaires à prodiguer aux pauvres, c'est de toute évidence à l'Etat qu'incombe le devoir d'en assurer la distribution. Mais la profession est toujours prête à accorder à l'Etat toute la collaboration voulue (la profession médicale de même, j'en suis certain).

"N'est-il pas juste alors de croire qu'avec le retour à l'état normal des conditions économiques (retour que nous avons raison de croire assez rapproché) et que grâce aux efforts que fait la profession dentaire dans les divers domaines de l'éducation du public, de l'étude du problème de la carie dentaire, et du travail de prévention, le problème se résoudra par lui-même, sauf en ce qui concerne la classe pauvre? Quant à la classe pauvre, c'est l'Etat qui doit pourvoir à leurs besoins. Maintenant, si en plus de leur assurer les soins nécessaires, l'Etat veut aussi collaborer avec la profession dentaire dans son travail d'éducation et de recherches scientifiques, la question de l'hygiène dentaire cessera vite d'être un problème.

"Nous pouvons donc établir comme suit les responsabilités de la profession dentaire envers la société:

"Premièrement: chercher par tous les moyens possibles à diminuer la fréquence de la carie dentaire.

"Deuxièmement: renseigner le public sur l'importance de la santé de la bouche, lui indiquer les moyens à prendre pour avoir et conserver la santé de la bouche.

"Troisièmement: collaborer avec l'Etat à 'application de mesures raisonnables pour apporter les soins dentaires à la classe indigente.

"Quatrièmement: s'opposer de toutes ses forces à tout projet d'assistance dentaire qui ne serait pas dans l'intérêt de la population toute entière."—*Arthur H. Merritt.*

"D'aucuns se demanderont peut-être: pourquoi attirer notre attention sur cette question? Cela ne nous intéresse pas, ce sont là choses des Etats-Unis. Peut-être. Mais n'oublions qu'à cause de notre proximité de ce pays, toutes les questions sociales ou politiques qui se posent là finissent tôt ou tard par se poser ici. Avant que l'orage ne vienne, il est nécessaire que les têtes dirigeantes de la profession dentaire et tous les membres de cette même profession se tiennent au courant des luttes qui se livrent contre nous, au delà de la 45ième.

De cette façon, nous ne serons pas pris au dépourvu et nous aurons préparé tous les arguments en notre faveur, enlevant ainsi à nos adversaires une arme dangereuse, l'élément surprise. De plus, nous aurons eu le temps de réfléchir et nous aurons peut-être à offrir pour résoudre le problème une solution bien à nous.

84 rue Mondor, St. Hyacinthe, P.Q.

Club Canadien—11 mars, 1940

Banquet du Centenaire dentaire

DR. EUDORE DUBEAU

Monsieur le président,
Mgr le Recteur,
Monsieur le Ministre
Mes chers confrères,

Je désire tout d'abord féliciter la Société Dentaire de Montréal d'avoir, conformément au désir exprimé par le comité américain du centenaire de la première école dentaire, organisé ce dîner, qui a lieu simultanément ce soir dans trois cents villes américaines et canadiennes.

Le docteur Poitras, notre historien dentaire et conservateur du musée rétrospectif de la chirurgie dentaire, avec la compétence que nous lui connaissons, nous a dit ou rappelé, suivant notre âge, l'évolution de la profession dentaire, c-à-d son passé. Le Dr Nolin, qui a vécu une grande partie de ce passé, malgré sa jeune et vigoureuse apparence, nous a dit ce qu'il pensait du présent,—à moi, vous m'avez réservé de dire ce que je pense de l'avenir.

Voici ce que le rédacteur du journal, "American College of Dentists", dans son éditorial de décembre, écrit: "La célébration du centenaire réel de notre profession devrait être une occasion pour tous les dentistes de se rappeler que:

1o. nous avons cent ans d'expérience derrière nous;
2o. que nous avons cent ans d'existence pour justifier notre autonomie;
3o. que nous avons cent ans au service du public, durant lesquels nous avons évolué de la mécanique et de l'empirisme à un art et une science bien définis, et que conséquemment, l'avenir de la chirurgie dentaire réside dans son développement, indépendamment de la profession médicale.

En France, la lutte, que je pourrais appeler séculaire, entre les médecins et les dentistes, a été la cause que le dentiste français n'a pu évoluer et que c'est le dentiste américain établit en France, qui en a bénéficié financièrement. Les médecins emploient des mécaniciens comme aides, avec un résultat déplorable.

Le Parlement Français, où il y a plus de médecins comme députés, a référé à l'Académie de médecine cette question d'autonomie, et cette dernière se prononça par un vote de 29 à 10, à savoir que les deux professions devaient exister séparément. De nouveau, la lutte s'est engagée l'an dernier pour exiger le diplôme de M.D., mais la guerre a suspendu les pourparlers.

En juillet 1939, le docteur B. Robinson, doyen d'une école dentaire américaine, écrivait ce qui suit: The restorative and reparative procedures in oral treatment that were not and could not be mastered by the physician in 1840 without special training were the first cause of the separation of dentistry from medicine. This characteristic difference continues to serve as a natural barrier to their union. As a consequence, these two arts cannot merge without injury to both, they can and should parallel as separate useful branches of the healing art.

"The future of dentistry depends largely upon the intelligent understanding which dentists have of the genesis of their profession and upon the fundamentals which served to bring dentistry into being."

En résumé, cela veut dire que les deux professions, médicale et dentaire, doivent continuer à exister séparément et que le médecin et le dentiste doivent collaborer ensemble pour le plus grand bien de leurs patients; et c'est ce que nous enseignons et répétons souvent à nos élèves.

Une chose contre laquelle il faut mettre nos jeunes dentistes en garde, c'est la spécialisation trop hâtive. Il y a actuellement une association aux Etats-Unis composée de professeurs d'écoles dentaires qui s'occupe activement de cette question et essaye de faire comprendre aux jeunes praticiens que la faillite dans la spécialisation est due au manque d'expérience dans la pratique générale.

Maintenant, quelques brèves statistiques:

En 1840, première école dentaire, fondée à Baltimore par les Drs Hayden et Harris. Cette fondation était devenue nécessaire à cause du fait que la Faculté de médecine refusait de recevoir des étudiants dentistes.—En 1940, cent ans après, il y a quarante-trois écoles — trente-huit aux Etats-Unis et cinq au Canada. Toutes ces écoles sont affiliées ensemble et de plus chacune est affiliée avec une université et ont un curiculum semblable.

En 1932, il y avait quarante-neuf rédacteurs et quarante-neuf revues dentaires. En 1940, 260 rédacteurs, 115 publications professionnelles mensuelles et 18 privées = 133.

Les 17, 18, 19 et 20 mars auront lieu, à Baltimore, des célébrations scientifiques et historiques extraordinaires à l'occasion de ce centenaire.

Presque toutes les écoles dentaires y auront des exhibitions de pièces provenant de leur musée et démontrant l'évolution de la profession durant le siècle qui vient de s'écouler. Le Dr Paul Emile Poitras, invité du comité du centenaire, y assistera et aura charge de notre exposition qui sera intéressante. Je m'y rendrai moi aussi, à la demande de l'Association des dentistes du Canada comme délégué officiel et ex-président des dentistes du Canada. A la demande du Comité, je présenterai un travail intitulé: "Relations dentaires internationales".

J'ai en ma possession le premier cours donné à la première école dentaire, à Baltimore, en 1840, le trois novembre, par le docteur Chapin A. Harris, premier doyen et co-fondateur avec le docteur Hayden.

Harris s'intitulait alors: "Professor of practical dentistry" — Si le docteur Nolin, qui possède merveilleusement le génie de la langue anglaise, veut bien le traduire pour notre Revue Dentaire Canadienne, ce qui serait très intéressant, car c'est un document historique pour la profession, je serai heureux de lui laisser avoir.

Bref Aperçu sur l'Orthodontie

Résumé d'une conférence donnée à la Société Médicale du district de Joliette.—

LOUIS LEPINE, D.D.S., Orthodontiste

Historique.—La question des irrégularités dentaires n'est pas d'origine récente, car l'histoire ancienne nous apprend que, Hyppocrate, environ 400 ans avant Notre-Seigneur fut le premier à en faire mention dans son sixième livre sur les épidémies. Après lui Celse, Pline, Galen, Albucasis et nombre d'autres auteurs jusqu'au XVI ième siècle ont parlé à plusieurs reprises de la correction des irrégularités dentaires. Mais à proprement parler, ce n'est qu'au XVIième siècle que fut reconnue la Chirurgie Dentaire comme division distincte de la Médecine en France, et c'est à la France que revient en réalité une large part du mérite de l'introduction de l'orthodontie en dentisterie avec Fauchard, le Père de la Chirurgie Dentaire Moderne. Plusieurs avant lui ont fait mention dans leurs écrits de malocclusions dentaires, mais aucun n'a parlé d'interventions orthodontiques effectives. Les principes mécaniques des appareils alors en usage à cette époque sont la base de la thérapie modifiée des appareils modernes. L'orthodontie en Amérique depuis cent ans et surtout celle des quatres dernières décades nous signalent les plus grands progrès comme les labeurs de Harris, Kingsley, Farrar, Angle et combien d'autres. Le terme Orthodontie ou Orthopédie Dento-faciale ne date que de 1840, alors que Lefoulon et Case l'ont introduit dans la littérature dentaire de l'époque.

On peut voir dans ce très bref aperçu historique que l'Orthodontie, la science du redressement des dents, n'est pas, au sens propre du mot, une science moderne, mais par contre la période la plus active de son progrès est plutôt de date récente, les quarante dernières années: progrès sûrement remarquable si l'on tient compte que c'est une spécialité de la Chirurgie Dentaire, elle-même une spécialité de la Médecine.

Définition.—Comme définition de l'Orthodontie, celle du Dr Angle semble la plus acceptée et la plus adéquate. Elle s'énonce ainsi: Cette branche de la Chirurgie Dentaire qui a pour objet la prévention et le traitement des irrégularités dentaires. Par conséquent, on rencontre deux sortes d'Orthodontie: l'Orthodontie préventive et l'Orthodontie curative. La seconde a engendré la première: on a d'abord pratiqué le redressement des dents, ce qui a amené la recherche des causes des malocclusions et on en est venu à empêcher les irrégularités dentaires, à les prévenir, d'où l'Orthodontie préventive.

L'Orthodontie préventive consiste dans les mesures à prendre pour la prévention d'un besoin futur d'Orthodontie: en d'autres termes, c'est un traitement ayant pour but d'éviter une malocclusion possible ou bien d'en arrêter la marche si elle est déja commencée. Pour le médecin, faire de l'Orthodontie préventive, c'est d'abord insister auprès de la future mère sur l'importance d'une diète appropriée et sur le maintien du plus haut degré de bien-être physique parce que la formation des maxillaires et des dents temporaires commence au début de la vie foétale par les bourgeons dentaires. De même, le médecin pratiquera l'Orthodontie préventive après la naissance de l'enfant en cherchant le maintien d'un équilibre nutritif suffisant afin d'éviter tous les troubles de malnutrition: troubles généralement accompagnés d'habitudes physiques mauvaises comme sucer le pouce, les doigts, les lèvres et les objets étrangers, ou encore déglutition défectueuse, tics musculaires, etc. Ces habitudes, nous le verront plus loin dans l'étiologie des irrégularités dentaires, entraîneront des malocclusions futures. L'Orthodontie préventive pour le dentiste, consiste dans la préservation des dents temporaires jusqu'à leur chute normale, car, l'espace libre fait par une dent temporaire prématurément extraite sera graduellement fermé par le déplacement des voisines, entravant

ainsi l'éruption prochaine de la permanente remplaçante. Elle devra faire son éruption labialement ou lingualement à sa position normale relative; ce sera alors une irrégularité dentaire qu'il faudra corriger tôt ou tard. Si pour une raison fâcheuse, une dent temporaire doit être extraite, il faudra maintenir l'espace intacte par un appareil approprié. D'un autre côté, pour laisser la voie libre à la permanente en voie d'éruption, il faudra souvent extraire la temporaire qui retarde à tomber. On pourra aussi cautériser le frein anormal de la lèvre supérieure à l'époque de l'éruption des incisives supérieures. Ce sont là les conditions les plus importantes pour la prévention des irrégularités dentaires futures, c'est-à-dire l'orthodontie préventive.

L'Orthodontie curative, de son côté, se chargera du traitement des malocclusions: c'est l'intervention thérapeutique proprement dite, ayant pour but de remettre les dents non seulement en position normale et esthétique mais surtout de rétablir l'équilibre normal de la mastication, c'est-à-dire, retablir l'occlusion normale: qui est la base primordiale de toute intervention dentaire puisqu'elle implique une articulation normale et par conséquent une mastication normale, facteur indispensable d'une bonne digestion. L'occlusion normale, c'est encore le rapport entre les dentitions maxillaire et mandibulaire lorsque la bouche est fermée ou pour être plus exact, lorsque les deux mâchoires sont en contact immédiat. Alors en occlusion normale, les premières molaires supérieures doivent faire leur occlusion en arrière du bord antérieur des premières molaires inférieures. Tandis que les canines supérieures doivent être situées aux commissures labiales et faire leur occlusion en arrière des canines inférieures. Chaque dent supérieure possède pareillement une position normale relativement à son antagoniste, tout comme le condyle a une position normal relative dans sa cavité glénoïde en occlusion normale. De tout cela on peut donc conclure que toute dent en position différente de cette normalité est en malposition ou en malocclusion. L'intervention orthodontique se chargera de rétablir autant que possible une articulation normale et une mastication physiologique en même temps qu'un esthétique convenable.

Etiologie des irrégularités dentaires.—Quels facteurs étiologiques provoquent l'anormalité de position des dents ou celle de l'occlusion? Les causes des irrégularités dentaires sont très nombreuses, le temps ne me permet que de faire mention des principales avec quelques notes de temps à autres. Le Dr Strang des Etats-Unis les répartit en trois grands groupes: les causes héréditaires, les causes prénatales et les causes post-natales. Mettant à part l'interminable controverse au sujet de l'hérédité des malocclusions, on rencontre deux grandes causes héréditaires: les dents absentes et les dents surnuméraires. On retrace facilement l'absence congénitale d'une dent dans la parenté de l'enfant, bien que ce ne soit pas toujours la même dent. Cela ne veut pas nécessairement dire que toute dent absente l'est congénitalement: on peut avoir oublié qu'elle a déjà été extraite. Les cas de dents surnuméraires sont plus difficiles à retracer parce qu'elles sont généralement assez évidentes pour les extraire dès qu'elles ont été considérées comme telles.

Les causes prénatales des malocclusions se classent en deux groupes principaux: les conditions chez la mère et les conditions chez l'embryon. Chez la mère, mentionnons la diète défectueuse, les maladies de caractère sérieux des femmes enceintes et enfin les traumatismes quels qu'ils soient, conditions qui, en théorie, nous semblent avoir une influence marquée sur les tissus dentaires délicats de l'embryon. Quant aux conditions chez l'embryon même, on peut rencontrer la position défectueuse dans l'utérus produisant une pression localisée, et le déplacement de tissus en voie de formation. On peut y ajouter le bec de lièvre et le palais fissuré: puisque les tissus qui formeront la lèvre supérieure sont normalement assemblés et formés vers la cinquième semaine de vie embryonnaire et puisque ceux qui formeront le palais dur, le sont vers la neuvième semaine, il pourrait se produire à cette époque une déficience systématique quelconque ayant une influence marquée sur ces formations embryonnaires empêchant l'assemblage des tissus d'origine de la lèvre supérieure et du palais dur. Les facteurs étiologiques du

bec de lièvre et du palais fissuré semblent encore inconnus du monde médical et dentaire. De nos jours, pour remédier à ces états pathologiques, on opère dans le bas âge, vers six à huit mois.

Enfin les causes post-natales généralement acceptées se répartissent en deux groupes; le groupe intrinsèque et le groupe environnement comprenant les causes systématiques. Parmi les causes post-natales intrinsèques des irrégularités dentaires, mentionnons la perte ou la chute prématurée des dents temporaires, l'activité hypo-fonctionnelle et défectueuse de la dentition, le frein labial anormal cause primordiale de l'écartement si fréquent des incisives centrales supérieures. Il y a encore les restaurations dentaires défectueuses qui dérangent l'occlusion et enfin le manque d'harmonie dans la grosseur et la forme des dents qu'on a souvent voulu, à tort semble-t-il, associer aux causes héréditaires. Et pour terminer, parmi les causes post-natales de l'environnement, considérées comme telles en ces dernières seulement, on rencontre d'abord les habitudes mauvaises caractéristiques chez l'enfant, comme sucer le pouce, respiration buccale, déglutition et prononciation défectueuses; ajoutons encore les anomalies musculaires comme hypertonicité, hypotonicité, hypertrophie et atrophie, le retard dans le développement et la croissance, la posture défectueuse durant le jour comme durant la nuit, les amygdalites, le métabolisme défectueux, les maladies et troubles constitutionnels en plus des conditions anormales des glandes à sécrétion interne, etc., etc.

On pourrait discuter longuement sur chacune de ces causes des irrégularités, malheureusement le temps ne nous le permet pas; tout de même cette très simple énumération nous donne une idée des connaissances médicales et dentaires que doit posséder l'orthodontiste. Il y a autre chose que l'esthétique à considérer dans le traitement des irrégularités dentaires: rétablir la mastication normale par une occlusion fonctionnelle normale doit être le but primordial de l'intervention, comme on l'a dit plus haut.

Diagnostic et analyse de cas: Avant d'entrer dans l'intervention thérapeutique, le traitement d'orthodontie préventive proprement dit, il serait peut-être à point de parler de diagnostic, mais ici il ne faut pas se méprendre sur les mots diagnostic et analyse de cas comme on le fait souvent. Le diagnostic à proprement parler est vite fait, car on constate avec la moindre observation qu'il y a irrégularité dentaire nécessitant intervention orthodontique. Il s'agit ensuite de faire l'analyse du cas, d'enregistrer d'une façon méthodique sur le dossier de chaque patient les différentes observations trouvées par rapport à la classification de la malocclusion, au temps propice à l'intervention, au caractère et au degré de mouvement de la dent, aux appareils à employer et enfin par rapport à la rétention une fois le traitement actif terminé. Pour faciliter cette analyse du cas, on a eu soin de prendre l'impression gnathostatique pour modèle de record et d'étude, l'enregistrement de l'occlusion, l'obturation des dents cariées, et dans certains cas la photographie et même la radiographie de l'articulation temporo-maxillaire.

(à suivre)

On demande un dentiste de quelques années d'expérience, et parlant les deux langues. Salaire à l'Année; dans un bureau privé de Montréal. Répondre chez le rédacteur du Journal:

Docteur A. Thibaudeau,
516 Est, rue Sherbrooke, Montréal.

Banff Springs Hotel Golf Course

Courtesy of Canadian Pacific Railway Company.

The ideal dentist must be keen of mind, expert in execution, kind and sympathetic in temperament, artistic and discriminating in taste, solicitous for the welfare of others, above reproach in every relation of life and adamant in the principles of equity and justice among men. These are the fundamentals. The detailed niceties of human conduct will be added day by day as professional experience matures.—Excerpt from editorial, Jour. of A.D.A.

LIEUTENANT LEONARD E. KENT, D.D.S.,
Montreal, Quebec

President of the Montreal Dental Club.
Graduated from the Faculty of Dentistry, McGill University, 1923.
Member of the Canadian Dental Corps, M.D. No. 4.

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Fractured Anterior Teeth—Natural Crown Restoration

by ROY G. ELLIS, B.D.S. (Adel.), D.D.S., B.Sc. (Dent.), Toronto

AFTER seeing many cases of fractured anterior teeth in both children and adults, the writer has attempted to classify these for the purposes of facilitating treatment. In this article the intention is to discuss a method of treatment for only one of the several classes included in this classification.

Type of Case

The cases in the group with which we are concerned herein, usually present remarkably similar characteristics. The crown of the tooth is fractured along an oblique line, labio-lingually. On the labial aspect the line of fracture is at or incisally to the gingival crevice of the tooth, while on the lingual side it is one to two millimetres beneath the attachment of the gingival tissues. A typical case is seen in Fig. I.

The attachment of the gingival tissues to the lingual surface of the fractured crown usually insures the retention of the crown in the mouth. This is fortunate in so much as the crown is maintained in its natural medium and not permitted to become dried out. When the crown is severed from the root portion and thrown off, it usually has an opportunity to become dried out with the resultant deleterious effect on the structure of the enamel and dentine. Furthermore, while the pulp is extensively exposed, the crown if retained, affords some protection to the vital pulp tissue.

Past Treatment

The treatment of these cases in the past has frequently been influenced by the many difficulties accompanying the construction of a successful restoration when the lingual margin was below the attachment of the gingival tissues. In such cases it is difficult to get an impression, or to make a successful matrix, and hence difficult to construct a restoration the lingual margin of which will be tolerated by the overlying tissues. With the idea in mind of overcoming these difficulties and others which arise in the construction of a restoration for these

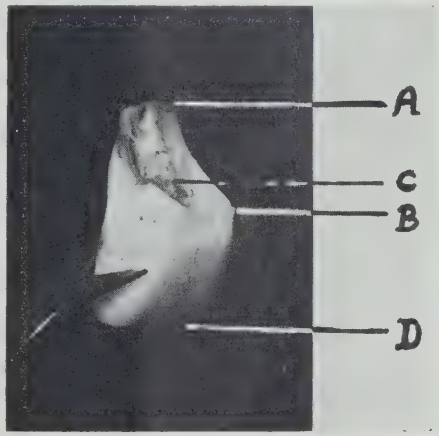


Fig. I.
A. Lingual gingival line of fracture. B. Labial line of fracture. C. Pulp chamber and contents. D. Incisal edge.

cases, we suggest the use of the crown which nature made for the tooth. If the line of fracture is a clean one, then the "margin" will be well-nigh perfect. If the shade of the crown can be maintained in its natural state then it should be in pleasing harmony with the adjacent teeth. If suitable retention can be provided it should resist any force of mastication during normal function.

Preliminary Consideration

(1) After a careful clinical examination of the tooth or teeth involved and surrounding tissues has been made and the patient has given the information required which must include the age, radiograms of the tooth concerned should be taken from at least two different positions mesio-distally. A single radiogram sometimes does not reveal the presence of a second line of fracture in the root. Since the radiogram is useful for determining whether or not just such a complication exists, and for information as to the development of the apex of the root, which is of paramount importance at certain ages, it must be accurate.

(2) Because of the extent to which the coronal portion of the pulp tissue is involved, root canal therapy is necessary and therefore the factors of age, health, non-vital teeth already present in the mouth, economics and others, must be considered.

(3) The probability also exists that a considerable degree of traumatic injury has interfered with the resistance of the periodontal tissues at the apex of the tooth and on that account extreme caution should be exercised during the phase of root canal therapy. The final result is dependent upon the successful removal of the pulp tissue and a good root canal filling.

Procedure

At the first sitting a local anaesthetic should be given for the purpose of removing the crown and the pulp from the root. Following the injection the field of operation should be isolated and swabbed with an antiseptic, such as 2% Iodine. It is seldom ever possible to place the rubber dam on these teeth because of the lingual margin. A bath of normal saline solution is ready, into which the fractured crown is to be placed upon removal from the mouth. The gingival tissue adhering to the attachment on the lingual aspect of the crown is carefully severed with a lancet and the crown removed. The gingival tissue fibres on the crown are then denuded from their attachment leaving a polished surface in this region. Before the crown is lodged into its saline bath, however, it is very carefully scrutinized for possible comminuted pieces of enamel or dentine which might interfere with its replacement on the root. The crown is now tried in the mouth to ascertain definitely at this stage whether or not it will lend itself to replacement. If it does not, now is the time to find out, not after considerable time has been spent doing root canal therapy. The crown should be placed in its bath of normal saline solution, not water. It must be sealed or well corked in the bath to prevent evaporation or better still the bath changed from time to time to maintain a normal saline medium and not one of varying degrees of concentration.

Before proceeding to remove the contents of the root canal, the bleeding from the lingual tissues might be controlled with a suitable styptic. When the field is dry, the contents of the root canal are removed, and a dressing of 10% cresol in glycerine is sealed into the canal on a paper point. The procedure of sealing the dressing in the root canal also involves the problem of packing the tissues back in such a way as to prevent them from encroaching upon the root stump. Two suggestions are offered: the first is

the simplest but not ideal from the aesthetic standpoint. It consists of cutting a post about 6 or 7 mm. in length of suitable gauge to fit the opening of the canal. Temporary cement is used to seal this post into the canal (and hence the dressing) but the post is left to extend beyond the opening about 3 to 4 mm. Two or three small sections of baseplate guttapercha, the size and shape of the root stump are cut, and in the centre of each a hole is punched with the rubber dam punch, large enough to slip over the extension of the post sealed in the root canal. One at a time these sections of guttapercha are warmed and packed to place over the post and hence the tissue surrounding the root stump can be maintained in the normal relationship to the root. At the next sitting the guttapercha is easily removed and a small pair of flat beaked pliers will quickly rotate out the post.

The second suggestion to seal in the dressing and to maintain the field clear of tissue and at the same time establish the aesthetic requirement is as follows: A section of posting material as previously mentioned, but slightly longer, is chosen. The end of the post which is to extend beyond the root stump should be flattened so that its mesio-distal diameter is at least twice the bucco-lingual. The post is now cemented into the root canal so that three to four millimetres of it is in the canal and the flattened end is well clear of the bite in all positions. A celluloid crown form is selected and contoured to fit the gingival outline of the root stump and be clear of the bite. The shade for silicate cement is now chosen.

The labial face of the celluloid crown form is filled with silicate cement, placed in position on the root to make sure that, when set, it will not impinge on the post which has already been sealed in the root, then it is removed and the silicate allowed to set. The next step is to fill the crown form with an oxyphosphate cement and seat it on the root stump over the post sealed in the canal. At the next appointment the temporary crown is removed with little difficulty with a slight rotatory motion. It can be used over and over again.

Treatment of Crown

After the first appointment the crown now in the saline bath must be cleaned of all adhering pulp tissue. The coronal portion of the pulp chamber of the anterior tooth is considerably flattened mesio-distally and must be preserved in that shape. Every particle of pulp tissue must be removed from the pulp chamber if we are to ensure that there will be no subsequent discolouration of the crown of the tooth. The great difficulty experienced in tracing out the fine extensions of the horns of the pulp even when the crown of the tooth is in one's hand, and the access is perfect, makes one more appreciative of the fact that we must seldom, if ever, remove this tissue entirely from the crown when it is *in situ* in the mouth. Perhaps this factor adds greatly to our inability in spite of care to prevent discolouration of non-vital teeth in the mouth. On the other hand, no more sound dentine should be removed from the walls of the pulp chamber than is absolutely necessary or the natural background for the enamel will be lost, and the crown may appear a shade or two lighter.

At subsequent sittings the methodical completion of the root canal therapy will be paramount. Stress should be placed on the necessity for exercising great care during this stage in view of the fact that we may have a periodontium which is irritated as the result of the trauma. Such a condition must settle down before the crown is replaced, or even before the root canal filling is inserted.

Following the completion of the filling of the root canal, the crown is attached

to the root and retained with the aid of a well fitted post. See Figure 2.

A 16 gauge platinized gold post of suitable length—(enough to extend into the root at least 8 to 10 mm. and into the coronal portion of the pulp chamber, as far as it will go)—is selected and to it is soldered a second piece — extending into the crown only.—Fig. 2B. As an alternative the full length post as chosen, may be flattened bucco-lingually at one end—Fig. 2C. In either case the post is broad mesio-distally at one end. This

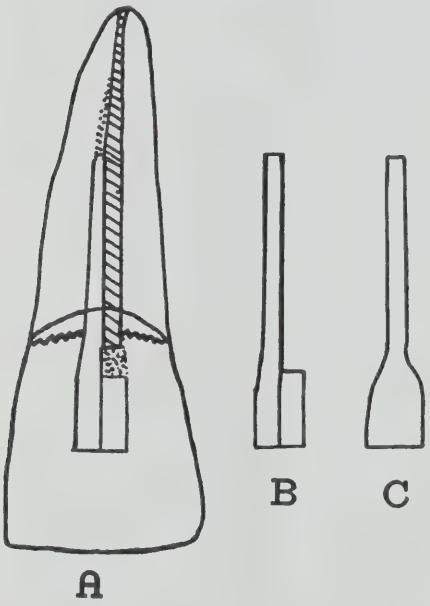


Fig. II.

A. The crown and root aligned, with post in position. B. The post with double section to fit the coronal portion of pulp chamber. C. The round post with one end flattened to fit the coronal portion of the pulp chamber.

section fits fairly snugly into the coronal portion of the pulp chamber as shown in Fig. 2A. Thus is prevented, the possible tendency of the crown to rotate on the post, and hence the reason for the previous suggestion that in cleaning out the pulp chamber of the crown its original shape should be preserved. By a series of trials and adjustments made where necessary, the crown and root can finally be aligned with the post in position.

Cementing the Crown to the Root

Attachment of the crown to the post and both to the root is accomplished in one operation. This permits of adjustments before the cement sets and ensures the perfect alignment of the crown on the root.

Case I.

October 1939. A young man aged 16 fractured upper left lateral; the labial margin, approximately 1 mm. from the gingival tissues and the lingual margin 2 mm. beneath the attachment of the gingival tissues. (When he presented himself the lateral crown was hanging by the lingual tissue.) The case was treated as outlined above. Fig. 3A. shows a model with the lateral crown removed and B after the crown had been replaced.

Figure 4 shows a photograph of the case six months after completion. Note

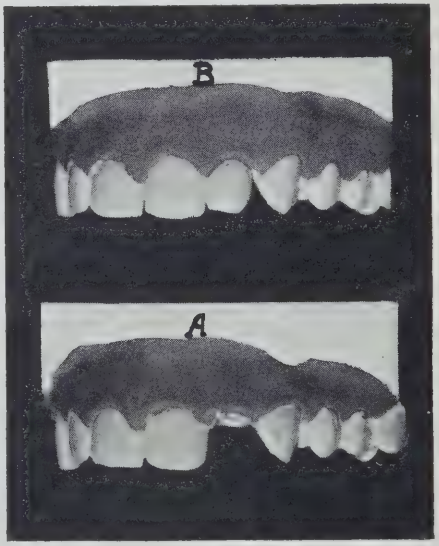


Fig. III.

A. After removal of upper left lateral crown. B. After replacement of upper left lateral crown.

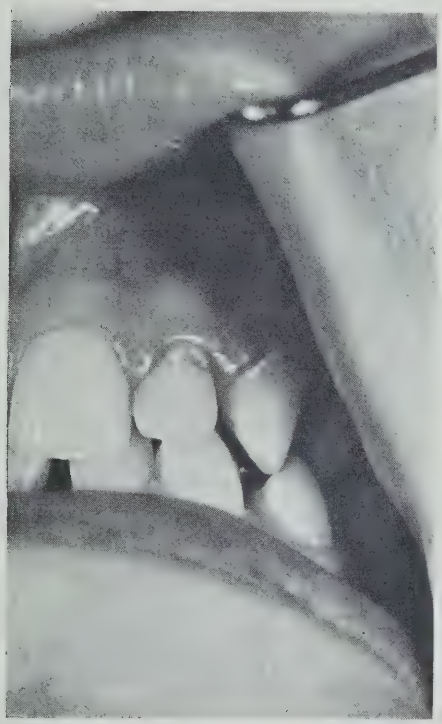


Fig. IV.
Six months after replacement of upper left lateral crown.

the discolouration of root portion of the labial surface at the gingival margin and the excellent retention of shade of crown portion.

Case II.

January 1940. A young lady 21 fractured upper right central. The labial fracture line was no more than one half mm. from the gingival tissues and the lingual line about 1½ mm. below the attachment. The crown was still in place when she presented herself. The case was treated as outlined in this report.

The photograph as shown in Figure 5 was taken 3 months later. The shade was quite unchanged at that date.

Case III.

Since the above cases were completed a third one has been finished. A slight variation came into the treatment in this instance. The patient was a dentist and before presenting himself he had removed the lateral crown involved, from the root, had placed it in water, (not normal saline) and had reamed out the coronal portion of the pulp chamber, sacrificing some dentine. Today the crown after replacement on the root is noticeably lighter in shade than the adjacent teeth.

Prognosis of These Cases

The prognosis for these cases seems good. Perhaps if anything goes awry in the future, it might be for one of the following reasons. Because they are non-vital crowns they might tend to split. Yet we refer to the cases in which the natural teeth are used on artificial denture bases for long periods of time, as long as they are kept moist. See Figures 6 and 7.

These dentures had served their owners well for a number of years in each case. In recent years they have been lying in a museum case and have become thoroughly dehydrated and show numerous check marks, hence the necessity of not allowing these crowns to dry out at all.

There are men today practising good dentistry who are using the natural teeth on artificial bases, and a great deal of satisfaction is claimed for this procedure. If the natural crowns are of value in the

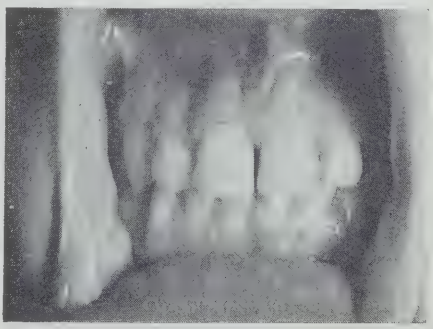


Fig. V.
Three months after replacement of upper right central crown.

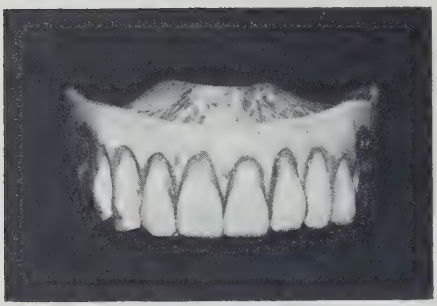


Fig. VI.
Upper denture of ivory with natural teeth in place.

Fig. VII.
Lower denture of bone with natural teeth in place.

one field, then surely they will be satisfactory on their own roots.

Secondly, with the attachment of the periodontal tissues stripped from the lingual portion of the crown we might see a pocket develop in that region. So far these tissues are normal in these cases.

Thirdly, some change in colour might be noticed. We doubt it.

Dean of Canadian Orthodontists Honoured

by G. VERNON FISK, D.D.S., Toronto, Ontario

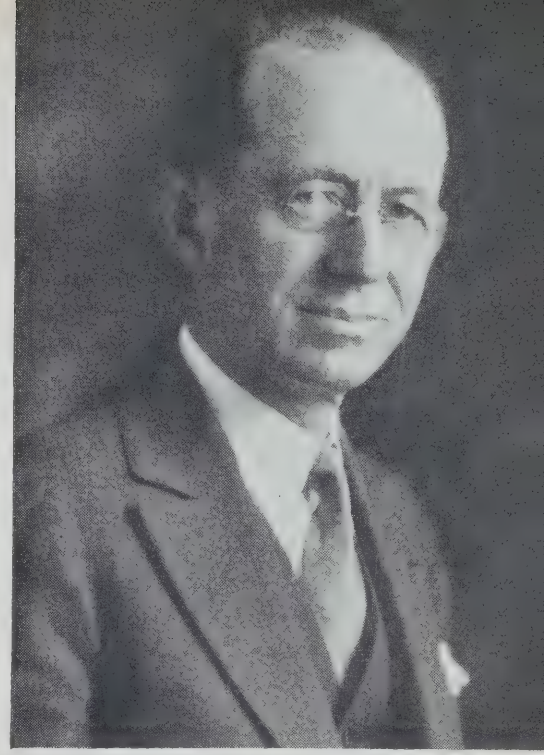
AT its regular meeting in Chicago on May 14, The American Board of Orthodontics conferred upon Dr. George W. Grieve, Toronto, the Albert H. Ketcham Award for 1940. Dr. Grieve, who is Dean of Canadian Orthodontists, received this honour for his outstanding contributions, not only to the orthodontic literature, but also to the advancement of the art and science of orthodontics generally.

Patterned after the American Board of Otolaryngology and other similar boards formed for the purpose of regulating the specialties of medicine, the American Board of Orthodontics was established by the American Association of Orthodontists in 1929. Dr. Albert H. Ketcham, of Denver, Colorado, who was chiefly responsible for the formation of the American Board of Orthodontics, became its first President, a position which he retained until his death in 1935. The chief activity of the Board is to establish standards of fitness for the practitioner of orthodontics. The Board does not confer a degree, but grants a certificate to the specialist in orthodontics who has been in exclusive practice for a period of at least three years and who satisfies the Board as to his qualifications. Certification by the Board designates him as a specialist of recognized merit.

Following the death of Dr. Ketcham, the American Board of Orthodontics sought some means of commemorating his splendid achievements and on April 19, 1936, in collaboration with the American Association of Orthodontists, established the Albert H. Ketcham Memorial Award. This Award is conferred annually upon the orthodontist or other scientist who has made an outstanding contribution to the science and art of orthodontics during the then current year or in some previous year. The Award Committee consists of three members of the American Board of Orthodontics and two members of the

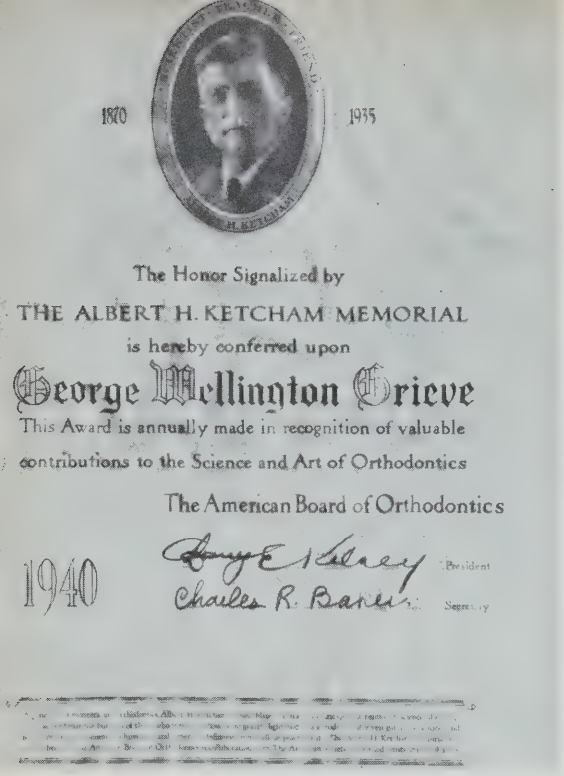
American Association of Orthodontists. Dr. Grieve is the fourth recipient of the Award, those previously receiving it being Dr. John V. Mershon, Philadelphia, 1937, Dr. Alfred P. Rogers, Boston, 1938, Dr. Milo Hellman, New York, 1939. The Award is not confined to men devoting their time exclusively to the practice of orthodontics but those in the general practice of dentistry or engaged in other allied sciences are also eligible for this Award.

Dr. Harry Kelsey, Baltimore, Md., President of the American Board of Orthodontics, presented the Award and in his encomium of this year's recipient referred to his unswerving and faithful devotion to the advancement of the American Association of Orthodontists as evidenced by his regular attendance and by his frequent participation in the Association's programs. Dr. Grieve's convictions, he stated, were always based upon a deep study and thorough analysis.



GEORGE W. GRIEVE

Geo. W. Grieve was born in Cobourg, Ontario, Sept. 18, 1870. His immediate ancestors, with the possible exception of his maternal grandmother, were Scotch. Following the death of his mother, and later his father, when he was about eight years of age, he made his home with relatives on a farm near Cobourg. About a year later his kindly foster-mother died, and a grown-up daughter, the eldest of three remaining at home, became mistress of the home. She was unkind to the young lad, and for the succeeding four or five years he was very unhappy. For about two years he attended school one and a half miles distant more or less regularly, and thereafter only in winter. Following several unsuccessful attempts, when only a little more than thirteen years of age, he finally, early on a bitterly cold morning in February, succeeded in making his escape, taking with him his worldly possessions—two suits of clothes, both of which he wore, and two dollars "borrowed" from the family purse. This was his financial start in life. In order that he might not be followed, he walked six miles, the longer of the two routes, to the nearest railway station and rode the remaining seven miles to the town of his birth, and spent the night with relatives. Next morning, after calling upon every shop on the main business street for more than a long block, he entered a newspaper printing office, received his "first chance" which was an opportunity to learn the printing trade at a salary of $1.50 per week. This amount had to be paid to a kindly old lady for board and lodging until he received an increase in wages when he was to pay more. To buy badly needed clothes, he sold Toronto papers on the streets and did other odd jobs in the evenings. After a time his employer took him to an old-fashioned tailor who made him a new suit, at the employer's expense, to replace the one he had worn from the farm, the trousers of which were neither longs nor shorts, but which later became shorts through the energy of a daughter of the kindly boarding-house mistress. After three years in



the Cobourg newspaper office, further experience in job-printing was gained in Owen Sound, where he remained for three years, working in the slack summer season as a waiter on the C.P.R. steamers on the Great Lakes.

At the age of twenty, George Grieve decided to come to Toronto where, after spending short periods in job-printing offices for about a year, he again obtained employment in a newspaper office. In this office he learned to operate the typesetting machine, which was just being introduced at that time, and later under the guidance of an expert machinist who had charge of these machines, learned much about their mechanism. A year later he accepted a position as machinist with the Montreal Star—his most interesting work thus far. Before going to Montreal he had obtained his matriculation by attendance at evening classes, and as he was anxious to enter Dental School as soon as possible, he returned to Toronto in less than a year and enrolled at the Royal College of Dental Surgeons. In the spring of 1899 he was graduated, obtaining the degree of D.D.S.

Dr. Grieve then accepted a partnership in a well-established dental practice. A few years later, Dr. Arthur Roberts, who was Toronto's first orthodontic specialist, graduating from the Angle School of Orthodontia in 1903, suggested that Dr. Angle present a paper before the Ontario Dental Association. Dr. Angle's forceful presentation, coupled with his well-known enthusiasm, stimulated into action an idea which had been developing for sometime in Dr. Grieve's mind and in the Autumn of 1907 he entered Dr. Angle's School at St. Louis. Upon the completion of the course Dr. Grieve declined an offer to take over Dr. Angle's private practice in St. Louis and returned to Toronto early in 1908, where he still conducts a busy practice as a specialist in orthodontics.

For over thirty years, Dr. Grieve has been an active member in each of the following societies: The Academy of Dentistry, Toronto, (formerly the Toronto Dental Society), the Ontario Dental Association, the Canadian Dental Association, the Eastern Association of the Angle School of Orthodontists. On many occasions in these organizations he has been honoured by election to the offices of President, Vice-president or other executive positions.

However, aside from service in these various organizations, his main interest and influence has constantly been in the realm of private practice. The privileged young graduates who continued their orthodontic training under his capable guidance realize his estimable worth. Because of his painstaking thoroughness, his meticulous attention to detail, together with his persistent leadership in methods of technique, his office has been throughout the years, a Mecca for the majority of visiting orthodontists.

Dr. Grieve is to be heartily congratulated upon being the recipient of the 1940 Albert H. Ketcham Award.

The Forum

• DUNLOP METHOD OF TREATING PERIODONTAL LESIONS

by W. H. SCHERER, D.D.S., F.A.C.D.
Houston, Texas, U.S.A.

(Condensed from paper presented before the Texas State Dental Society.)

THE Dunlop Method of treatment of periodontal lesions was introduced about twenty-two years ago in Chicago. Careless application of the technique due to lack of training and literature on the subject, coupled with some minor unpleasant results, caused the method to be cast aside. Dunlop therapy was so far in advance of sound pathological knowledge of the periodontal tissues that it suffered in consequence. The dental profession was not prepared for it.

Harold Box has advanced unofficially and privately some views which I am taking the liberty of quoting: "Oxygen therapy offers three major benefits:—

1. Re-establishment of alkalinity in the tissues.

2. Effect on the oxidative mechanisms in the tissue cells.

3. Rise in "The oxidation-reduction potention" of the tissues which is thereby unfavourable to anaerobic infection.

The Dunlop Method is comprised of three parts. Dunlop's greatest contribution was his discovery of a method of introducing oxygen into diseased tissues. This is known as oxygen insufflation.

The apparatus necessary for oxygen insufflation consists of an oxygen cylinder in which there is present with the compressed oxygen, oil of peppermint, and yeast. This compound vapour is brought through a reducing valve to a Dunlop Machine, containing mentho-borate. The compound vapour passing through the mentho-borate as a dry vapour now passes through a tube to a nozzle with an attached fine blunt needle. The needle is brought to, or just under, the free margin of the gum at about thirty pounds pressure. The introduction of the vapour may occur as a flash in the tissues, or may be indicated by a diffuse reddening of the entire region.

Diseased tissue, inflammatory or atrophic, suffers from the lack of oxygen. The flow of the vapour, from sound to morbid tissue, is easily explained through an increased oxygen avidity.

Dunlop Paste

The second component of the Dunlop Method is a paste which contains boric acid, glycerine, oxygen, oil of peppermint and other ingredients. This paste is antiseptic, non-toxic and a dehydrant. Being non-escharotic, it can be freely applied to the gingival tissues. It is injected into the pockets and beneath the crevices generally; it is further forced into the deeper pockets with a rubber cup. This can be accomplished by placing the finger on the lingual surface while pumping the paste deeper into the depths of the pocket than is possible to attain by relying on the syringe alone. It is allowed to act for some minutes before rinsing. The paste is also used by the patient for massaging the gums.

The paste is unique in its action, due probably to its glycerine content. Glycerine is a good solvent, its powers corresponding more closely to water than those of most organic solvents. It is very hygroscopic, and to this property much of its local action is due.

The glycerine of the paste with its combination of oxygen liberating drugs, softens the calcic deposits on the root surfaces, facilitating their removal at a later sitting. The paste also inhibits bacterial growth, stimulates the flow of the inter-cellular fluid from the tissues and neutralizes all toxic matter.

Dunlop Wax

The third component of the Dunlop Method is a surgical wax with paraffin as a base, with boric acid and the above mentioned medicaments. It is produced in several size sticks and can be injected into the pockets in a heated metal syringe or packed while plastic into the deeper recesses of the pocket with a plastic instrument. The pockets and interproximal spaces are entirely filled, the wax is permitted to extend over the marginal gingivae, sufficient finger pressure is exercised to hold the wax in place.

The wax offers a sealing medium of not too permanent a nature, protecting the gingival tissues which are frequently denuded of epithelium. The gentle pressure produced has a valuable mechanical effect in shallowing the pockets to their base to make scaling more accessible. Through its medicinal qualities a decided curative influence in the pocket wall is noticed. A startling gingival atrophy is produced without loss of healthy tissue.

According to Box, Dunlop has made a major contribution to periodontal therapeutics. In the introduction of the paste and packer phase of the treatment, he anticipated our appreciation of the value of gingival atrophy and inhibition of anaerobiosis in crevice and pocket formation. The scientific background of the Dunlop Method, incorporating as it does valuable therapeutic and mechanical phases, is destined to become an accepted, definite and positive means of eliminating the periodontal pocket.

• ADEQUATE VITAMIN DOSAGE

by P. W. BROWN, M.D., Division of Medicine, Mayo Clinic

(Condensed from Proceedings of the Staff Meetings of the Mayo Clinic.)

1. Vitamins are best obtained in normal foods and people who eat a fairly wide variety of foods need have no concern about vitamins or lack of them.

2. Vitamins are not a "cure-all." Furthermore, the addition of vitamin supplements to a normal diet is of no value, in the absence, of course, of disease or a previously inadequate diet. This is proved in the case of ascorbic acid at least; beyond a point of normal saturation of this acid, the body promptly eliminates the excess.

3. Many people, because of economic conditions, unusual food habits, or illness, are in a condition of marginal or actual vitamin deficiency. In many instances there may be no frank signs of such a deficiency; furthermore, when this deficiency exists, it is usually a multiple vitamin deficiency.

4. There is an unusual disproportion between what is now considered to be the normal daily need for vitamins and the amount required for the treatment of the deficient state. In amplification of this, it can be said that if there is no obvious response to adequate dosage within a few days, there is little or no need to continue this particular treatment.

5. The vitamin preparations which contain four or five different vitamins have some justification in the treatment of people who are not ill but who are "poor eaters" and who are in poor health. This applies chiefly to elderly individuals. Otherwise, there is little with which to justify their usage.

6. It should be remembered that vitamin K is rapidly lost when illness or faulty diet intervenes. There is practically no storage of vitamin K. This likewise applies to vitamins C and all the B group, although there is apparently a

slightly greater margin of safety in the use of vitamins C and B than there is in the use of K. Vitamin A and probably vitamin D may be stored in amounts which will last for months.

• THE DENTIST AND CANCER

by FRANZ BUSCHKE and SIMEON T. CANTRIL

Condensed from Radiation Therapy, a Supplement to the Staff Journal of the Swedish Hospital, Seattle, Washington, from the Tumour Institute. No. 1, February, 1940.

FOR no other type of cancer is the practical prophylaxis as important and as efficient today as for cancers of the oral cavity. "Dentistry carries a heavy responsibility for prevention of cancer of the mouth." (Ewing). The squamous cell carcinomas of the oral mucosa and of the tongue are preventable diseases in an overwhelming majority of cases. The factors, the interplay of which present the causes of oral cancer, are well known today and most of them can be easily eliminated. Chronic chemical and mechanical irritation play the predominating role. *Three sources of chronic irritation are of main clinical importance*: chronic mechanical irritation by jagged teeth or badly fitting dentures, chronic infections either in the form of unspecific infections within the oral cavity or in the specific form of a syphilitic infection, and the chronic irritation by tobacco in the form of smoking or chewing. These factors may act independently or they may work together. As a fourth factor electric currents due to dissimilar fillings have recently been recognized as a stimulating factor in some patients.

A frequent precursor of carcinoma in the oral cavity is *leukoplakia.* Leukoplakia should be considered as a frank precancerous lesion and treated as such. Leukoplakia in general indicates the presence of some underlying chronic inflammatory process, most frequently either a chronic syphilitic infection or an unspecific chronic infection within the oral cavity. The disappearance of the leukoplakia after the elimination of an oral sepsis is sufficient proof of the aetiologic relationship. The importance of electric currents generated by fillings with different metals is sometimes strikingly demonstrated by the appearance of leukoplakia plaques exclusively in the immediate neighbourhood of such dissimilar fillings. Rovner and Cantril have shown that potentials as high as 0.2 volt can be found between fillings of dissimilar metals. The relationship between tobacco and the development of leukoplakia is generally known and finds its expression in the term "smoker's patch." Tobacco may cause leukoplakia by either smoking or chewing. One may find localized patches of leukoplakia in patients chewing tobacco exactly at the place where they usually hold the plug of tobacco.

Since leukoplakia develops into carcinoma in a large number of cases, it must be considered as a serious affection and treated as such. This *treatment* consists primarily of the removal of all possible causative factors: the treatment of an underlying syphilitic infection, the elimination of oral sepsis by correction of dental caries or badly fitting dentures, the removal of dissimilar fillings and their replacement by identical fillings, the complete elimination of tobacco in any form. In many instances this treatment, if carried through thoroughly, will lead to the disappearance of the leukoplakia. If this treatment alone is not successful more serious procedures may be considered but their application has to be decided in every individual case.

Every patient who ever had a leukoplakia or a carcinoma of the mouth should be regularly observed throughout many years after this particular lesion has been controlled.

The dentist has an unequalled chance for the early recognition of tumours of the oral cavity. The most efficient way to recognize cancer in an early stage in

any organ is the regular check-up, this means a regular routine examination. So far no other field of medicine has succeeded in educating the public for such a regular examination as has dentistry. It is no exaggeration to state that a large proportion of the general population by consequent education has been convinced of the necessity and practicality of regular visits to the dentist, whereas any other routine examination, such as gynecological check-up without any symptoms, is still a rare exception. The dentist, therefore, has the opportunity of regular inspection of the oral cavity in patients without symptoms or with only slight distress which would not yet lead them to seek medical advice.

For what kind of pathosis then should the dentist look at these regular examinations? We may separate the practically important tumours into two main groups: those which originate from the mucosal epithelium and therefore alter the normal appearance of the mucosal surface, and secondly those which originate from submucosal structures and which, therefore, in their earlier stages do not alter the appearance of the mucosal surface but appear as tumefaction.

The collaboration of the dentist in the preparation of the oral cavity for any radical procedure in the treatment of oral cancers is indispensable. It is obviously not only useless to attempt the irradication of a cancer if the conditions which have led to its appearance persist and will probably cause another malignant growth, but it is also highly dangerous to apply any heavy irradiation as long as an oral sepsis persists. We will, therefore, never begin any drastic irradiation therapy of oral cancers before we have the dentist clean up the foci of oral infection and repair carious teeth. In those cases in which we intend to apply heavy irradiation, particularly roentgentherapy to larger areas of the oral cavity, *we demand today the extraction of all teeth within the field of irradiation.* Not only the removal of those teeth which have foci of infection and are in a bad condition but even healthy and normal teeth should be removed as a matter of safety.

Before beginning treatment we wait usually for the complete healing of the extraction wounds and frequently the tumours after the removal of these foci of infection improve considerably.

In view of this possible permanent damage to those teeth which had not been removed and which remain within an irradiated jaw, it is self-evident that the proper after care in patients who have been subjected to intense irradiation is important. The dentist must know that this patient has been subjected at some time, no matter how long ago, to heavy irradiation. He must appreciate that he is not dealing with a normal oral cavity. For after this heavy irradiation bone and teeth may be devitalized without any clinical symptoms but as soon as any infection takes place this devitalized bone is seriously endangered. It is necessary, therefore, that all dental manipulations be done in these patients with the utmost care and with an appreciation of the previous treatment and that they be as conservative as is reasonably possible. The fragility of the mucosa must be considered in giving the anaesthesia. *Extractions should be done only if they can not be avoided, and if they are done they should be done with the least possible trauma.*

It should go without saying that any manipulation in the oral cavity should be avoided during and immediately following heavy irradiation therapy. If any emergency requires dental treatment this should only be instituted after consultation with the radiotherapist who knows how much irradiation this patient has received at the time and can advise the dentist in consultation as to the most advisable procedure at the moment.

PRINCE EDWARD ISLAND

Editor—M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

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Dunlop Vapour

Recently there has been an increasing interest in oxygen due chiefly to the war, since oxygen is very important to flying at high altitudes, and to the functioning of submarines, etc. There has also been an increased interest in oxygen from a medical standpoint, since oxygen is necessary for life and has been the means of saving the lives of many patients from the premature infant to the aged person. The value of the administration of oxygen in certain major surgical procedures can hardly be questioned. Dr. C. W. Mayo, of the Mayo Clinic, has recently said, "It has become a common practice immediately following major surgical procedures to give oxygen by means of the nasal or oronasal mask, as the instance may demand. I have done so almost as a routine measure and can say without reservation that in no instance has it contributed to an unhappy result and in many instances I have felt that it has been a vital factor in an uninterrupted convalescence."

In dentistry oxygen has been used chiefly, in the past, in conjunction with nitrous oxide as a general anaesthetic. For some years it has also been used by a few men, either in the form of pure oxygen or in the form of Dunlop vapour, as a wet spray, the oxygen being forced through Dunlop menthoborate solution, or sodium perborate solution or hydrogen peroxide or other

drug solutions. It has also been used with the same Dunlop apparatus to insufflate the alveolar tissues with a dry oxygen vapour, with the idea of bringing about more rapidly a healthy periodontium.

Holmes states in his Metabolism of Living Tissues that the living cell in which biochemical reactions occur, is itself a most complicated piece of chemical apparatus, the parts of which are of molecular dimensions, and are so fragile that they are often destroyed by a mild rise in temperature, by a shift of reaction of a pH unit or so, by freezing, or by lack of oxygen. Wells in his Chemical Pathology says that reduced blood supply results in increased H-ion concentration which greatly facilitates autolysis, and it cannot be denied that autolysis is observed chiefly if not solely in asphyxiated tissues. It is such findings as these that suggest the use of oxygen in treating periodontal lesions.

Twenty-seven years ago the late Dr. Wm. F. Dunlop, of New York, worked out a treatment for gingivitis and periodontoclasia consisting of a wax packing, a paste and a therapeutic agent known as Dunlop Vapour which is a mixed gaseous substance produced by passing, under pressure, a compound vapour of oxygen, oil of peppermint, alcohol and yeast, through an aqueous solution of boracic acid and the forementioned ingredients. Of course, the vapour is chiefly oxygen.

The writer saw this treatment demonstrated about twenty-five years ago by prominent American dentists but before long it seemed to come into disrepute and a number of prominent periodontists threw aside their machines and for some years little attention was paid to this treatment.

A few years ago Dr. Harold Box, of Toronto, became interested in this problem and eventually became enthusiastic in the use of the Dunlop method, and through him a number of Canadian dentists commenced to use this treatment. As a result of this about two years ago I wrote to seven prominent periodontists in the U.S.A. whom I knew had at one time used Dunlop vapour and requested their opinion of the same. Five of these men had given up using it either because they felt that they could obtain as good results by proper tooth-brushing, or because they felt it was dangerous to use. Two of the seven were still using it and in fact were enthusiastic about it, but even these two always used the wet spray and were fearful of the dry vapour used to insufflate the tissue. A year ago I sent a questionnaire relative to Dunlop vapour to at least one Academy member in each city of the U.S.A., represented by the membership of the American Academy of Periodontology with the following results. Ninety questionnaires were sent out and 78 replies were received, a remarkably high percentage. I heard from members in 32 states and 63 cities. Of this number only 11 used the Dunlop machine at all and of these only 6 insufflated the tissues, the others using the wet spray only. One of the 6 used pure oxygen instead of Dunlop vapour, using both dry and wet vapour, and had over 2,000 case histories of Vincent's infection where oxygen had been used without a single failure.

There are men using oxygen in periodontal treatment in Australia, New Zealand, Great Britain and particularly in Austria, prior to its conquest by Germany, due to the recommendation of Dr. Gottlieb who lived in Austria at that time. There are about fifty men using the Dunlop machine in Canada at the present time due to its enthusiastic acclaim by Box.

So as to bring order out of chaos in my own mind I obtained a Dunlop machine a little over a year ago and have given 2,300 treatments by insufflation. The mouths of 866 of these patients appeared to be in quite good shape. The vapour appeared to penetrate the tissue freely in 22 cases, medium in 122 cases, very little in 616 cases and not at all apparently in 106 cases. The mouths of 1212 patients were in medium condition and the vapour penetrated freely in 424 of these cases, medium in 605 cases, some in 165 cases and not at all apparently in 18 cases. The mouths of 222 patients were in poor shape and the vapour penetrated freely in 163 cases, medium in 43 cases and some in 16 cases. In treating these cases the technique as outlined by Box was followed as closely as possible. There was not one case in which there was the slightest alarming symptom and the results were most satisfactory. To treat a case with this vapour, that in the past had caused continuous concern, and have the patient return in a couple of months and say that his mouth had not felt so well or looked so well in the past ten years gives one a real sense of satisfaction. I am very enthusiastic about this vapour and feel greatly indebted to Dr. Box for persisting in his advocacy of it.

As will be seen from the above figures the vapour penetrates much more freely into diseased tissue than into healthy tissue and as Gottlieb points out, pulpless teeth seem especially to attract the oxygen.

The late Dr. Kronfeld said, "Oxygen is used in the case of livid gums and chronic hypertrophying inflammation which leads us to the suspicion of a disturbance of metabolism in the tissues. In such cases, oxygen may produce wonderful cures of gingivitis which have previously obstinately resisted treatment, the oxygen helping to burn out the waste material in the tissues."

Box has done some work on sheep to show that Dunlop vapour is superior to pure oxygen but probably further work should be undertaken in this regard before too definite conclusions are drawn.

I cannot help but feel that the reason this treatment has not received more enthusiastic support is because of lack of sufficient information about it. Properly used I do not believe there is any danger and the results are extremely gratifying. As time goes on oxygen will be used more and more in the treatment of pathosis within the oral cavity.

"The medical and dental professions should show their frequently aroused interest in the health of the community by presenting a plan to meet the health needs of the masses of the people. To wait until we see what kind of a plan is put forward by the government will be much too late."—J. T. Hanks.

CORRESPONDENCE

A Message From Our President

To the Editor, Journal of the C.D.A.,
Le Journal de L'Association
Dentaire Canadienne:

When your President was asked to accept the post of President Elect two years ago, it was pointed out that the Board of Delegates were deliberately going outside the circle of those who have been active in the organization. This was an experiment, all previous presidents since the reorganization of the Association over ten years ago having been either delegates or immediate past delegates.

In this introductory message I should like briefly to tell my fellow members of the Canadian Dental Association something of what I have learned during the past two years. I have been treated as a delegate, without vote however, in that I was furnished with the minutes of the Vancouver Meeting and copies of the considerable correspondence that is circulated frequently and systematically among the delegates. This was an educational preparation that gave a valuable background to the rather strenuous three days' meeting of the Board of Delegates and subsequent general meetings of the Association held in Toronto in May of this year.

Minutes and correspondence are at best rather warmed-over affairs and frankly I was not prepared for the serious, intensive, disinterested application exhibited by the delegates during these three days. Many of the delegates like myself were new to the work, and it was interesting for us to transform names and signatures into real people. We became acquainted quite rapidly and very little time was wasted over preliminaries. In due course the reports of various committees will appear in this Journal and you may yourselves judge of the diversity and amount of the business that was under consideration.

In closing this brief communication I should like to make two comments. I wish to pay tribute to the work of my predecessor. Dr. Moore has earned the gratitude of Canadian Dentistry. In amount of time and energy devoted to his duties he has set a very awkward precedent. In fact Dr. Rooney, who has accepted the Chairmanship of the Board of Delegates, and your President have no illusion as to what lies ahead if they are jointly to maintain the pace set singly by Dr. Moore.

Also I should like to acknowledge the very cordial co-operation of the Ontario Dental Association during the joint meetings in Toronto. The generous attitude of President Morton of the Provincial Association, and his officers in making provision in their very full program for Canadian Association affairs was not only deeply appreciated but is indicative of a realization of the growing community of interest existing between the Dominion Association and the various Provincial organizations.

70 Spring Garden Road,
Halifax, Nova Scotia.

(Signed) WM. W. WOODBURY,
President, Canadian Dental Association.

7th May, 1940.

To Dr. Stephen A. Moore:

I thank you for your very kind letter of 18th April and assure you that the good fellowship exhibited by all the members of the Canadian Dental Corps who visited us has made the reunions we have had most pleasant and happy.

Quite recently we had a Conference of Representatives from the various Branches and in the afternoon we had a reception when most of the members of the Canadian Dental Corps came to Headquarters and got to know us and the building, and in the afternoon we entertained them at dinner. Major Trelford gave us an inspiring address on the work of the Canadian Dental Corps, how it was conceived and put into effect, etc. We were proud to think of the part which the Canadian Dental Association played in the development of the Corps. Major Hamilton told those assembled of the work of the Canadian Dental Association with especial reference to the Ontario Dental Association and the development of the Study Club. Captain Lantier spoke for the men of Quebec and other mem-

bers from Eastern and Middle Canada spoke later. It was a delightful evening and I hope later to be able to send you a copy of the photograph which probably will become an historic document.

The good wishes which you extend to our President and members in these difficult times will be very deeply appreciated. The importance which the Government attaches to the services of the profession will be recognised when I tell you that every duly registered practitioner is in a reserved occupation notwithstanding which we have had a large number of men volunteering for dental service and so far we have been able to meet the demand of the Services. Will you convey to your members our hearty and fraternal greetings?

(*Signed*) W. G. SENIOR,
Dental Secretary, British Dental Association.

BOOK REVIEWS

"Clinical Dental Roentgenology, Technique and Interpretation". By John Oppie McCall, D.D.S., F.A.C.D., Director, The Murry & Leonie Guggenheim Dental Clinic; former Professor of Periodontia, New York University College of Dentistry, etc. and Samuel Stanley Wald, D.D.S., F.A.C.D., Head of the Department of Diagnosis and Roentgenology, The Murry and Leonie Guggenheim Dental Clinic and School for Dental Hygienists; Assistant Professor of Roentgenology, N.Y. University College of Dentistry, Lecturer in Dental Radiology, New York University College of Medicine, etc. 319 pages, 1046 illustrations on 355 figures. Published by W. B. Saunders Company, 1940. Canadian agents: McAinsh & Co. Limited, Toronto. Cloth, $6.50.

This publication has the pleasing characteristic of conciseness, with many illustrations depicting the different questions and conditions discussed. It goes briefly into the physics of x-ray production, particularly explaining the important factors which enter into the taking and processing of dental roentgenograms.

The technique is described for taking both intra-oral and extra-oral views, with illustrations depicting the different procedures. The principles governing interpretation are discussed with illustrations.

Chapters are devoted to derangements of the maxillary sinus, impacted, supernumerary and unerupted teeth and foreign bodies.

As far as the reviewer is aware, it is the first time a full description with roentgenograms illustrating all stages of the growth and development of the teeth and jaws, from a three-months fetus to a twenty-one year adult, has been presented in any text. This presentation should be of great value to dental and medical students, the pedodontist and orthodontist, as well as the general practitioner.

The book is splendidly prepared, has many illustrations and particularly appeals to the reviewer from the fact that the reading material is brief and to the point.—*S. A. M.*

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"Labio-Lingual Technique, A description of the Labial and Lingual Appliances in the Treatment of Malocclusion". By Oren A. Oliver, D.D.S., F.I.C.D., F.A.C.D., Nashville, Tenn.; Russell E. Irish, B.S., M.A., D.D.S., F.I.C.D., F.A.C.D., Pittsburgh, Pa. and Claude R. Wood, D.D.S., F.I.C.D., Knoxville, Tenn. 424 pages, 278 illustrations. Published by the C. V. Mosby Company, St. Louis, Mo., 1940. Canadian Agents: McAinsh & Co. Limited, Toronto. Cloth, $11.50.

This book is a practical text, explaining the technique and principles of the labio-lingual appliances in the treatment of malocclusions. It does not deal with any biological questions but the authors draw attention to the importance of the biological factors.

The authors discuss in different chapters of the book the various techniques of taking impressions and different materials, as well as the methods of boxing, pouring and separating impressions. The methods described are practical and the usual daily procedure in most orthodontic offices.

The question of materials in the making of appliances is discussed very fully and from

this standpoint the text is of practical use to every dentist who may treat malocclusions in his office.

The illustrations are many and splendid and add clarity to the technique described. The format of the book is splendid and the reviewer can recommend this publication as a valuable text to be followed in the making of appliances and the treating of different types of malocclusion.—*S. A. M.*

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The Dental Story of the Dionne Quintuplets, by Arnold D. Mason, D.D.S., F.A.C.D., Dean of the Faculty of Dentistry, University of Toronto. Published by the Ontario Dental Association; Fred J. Conboy, D.D.S., Secretary, 86 Bloor St. W., Toronto, Canada. Price $1.00.

This brochure is a study and report of the dental conditions of the Quintuplets to five years of age. The study is preceded by a general account of the birth and lives of these famous little girls, showing also a picture of their birthplace as well as that of the Dafoe Nursery.

The dental problems are outlined under the following headings: Nutrition; Diet; Eruption of Deciduous Teeth; Dental Prophylaxis; Tests of Saliva; Salivary Enzyme Report; Radiography and Orthodontia; Dental Arch Measurements, and Suggested Application.

The brochure is illustrated with one hundred and eighteen cuts and is worthy of the careful study of every dentist. As the author states, "The history of the Dionne Quintuplets should prove an object lesson to the people of the civilized world. It has demonstrated a health achievement of commanding and spectacular proportions."—*M. H. G.*

DENTAL CORPS NEWS

Major Blair Going Overseas

Major J. F. Blair, D.S.O., of M.D. No. 1, has been appointed to command the Canadian Dental Corps with the Second Division, Canadian Active Service Force.—*London Evening Free Press.*

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No. 10 Company Headquarters Winnipeg, Manitoba

On Sunday, May 12, No. 10 Company, 31 strong, took part in the District Drum Head Church Parade and the March Past on the Legislative grounds with Inspector General Ashton taking the salute. Captain Bailey headed the Company and Lt.-Colonel Wright attended with the staff at the Saluting Base.

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The following members of the Corps have proceeded to join the troops overseas: Capts. Morrison, Buchanan and McMillan; Sergeants Butterill, Fryer, Hoffer, Gow and Virtue; A/L/Cpt. Snidal; and Privates Zink, Wade and Martel.

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The following officers have been promoted to the rank of Captain: Lieutenants G. A. Buchanan, R. W. Morrison, J. A. Abra, P. M. Johnston, S. E. Greenberg, A. I. Hamilton, D. B. McMillan, G. E. Shragge and W. R. Cunningham.

Captain A. I. Hamilton and L/Cpl. Fa'mer and Pte. Cordner are now on duty at Brandon with the R.C.A.F., being the first so posted with M.D. No. 10.

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Captain N. S. Bailey has been promoted to the rank of Major. The following also have been notified to be ready to come on duty: Drs. J. R. Fowlie, K. I. Levinson, O. Brewer, R. S. Kinney, and C. R. Oke; while Dr. D. M. Boyd is already on duty.

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Ladies' Auxiliary

The Ladies' Auxiliary gave all ranks and their lady friends a party on May 15 at the St. George's Parish Hall.

Up to the present the Auxiliary has been just temporarily organized but now the regular organization has been completed and the following are the officers for 1940-41: President, Mrs. W. W. Wright; Vice-President, Dr. Olive Cole; Secretary, Mrs. John Abra; Treasurer, Mrs. J. Currie; Chairman, Ways and Means Committee, Mrs. P. J. Gallagher; Convener, Sewing Committee, Mrs. C. S. McLeod; Convener, Knitting Committee, Mrs. H. R. Tweed; and Convener, Visiting Committee, Mrs. P. M. Johnston.

NEWS FROM THE PROVINCES

MANITOBA:

Manitoba Celebrates the Centenary of Dentistry

Manitoba's tribute to the memory of Drs. Horace H. Hayden and Chapin A. Harris, founders 100 years ago of the first dental school in the world, took the form of a two-day effort to further raise the standard of dental efficiency in this Province. To make this a certainty Dr. Harry A. Gilchrist, Professor of Prosthetic Dentistry, at Alberta University, was invited to demonstrate the Fournet-Tuller impression technique to the members of the Manitoba Dental Association and visiting dentists from the neighbouring provinces and states.

Many of the dental profession who include full dentures in their service to the public have their failures in adhesion. The lowers won't stay down and the uppers refuse to stay up. Dr. Gilchrist has included all popular methods in his teaching of impression taking but has now pretty well limited his lower impressions to the Fournet technique and his uppers to the Tuller method. So great was the interest in Dr. Gilchrist's clinics during the full two days that the annual meeting of the Manitoba Dental Association which had been called for 4 p.m. on the second day had to be postponed to a later date. Dr. Gilchrist took upper and lower impressions for two "tough cases" and for the information of those who attended the Convention we may say that the dentures for both patients stay where they are intended to.

On the evening of the first day of the Convention a dinner was held in the Fort Garry Hotel, Winnipeg, at which the guest speakers included Dr. F. W. Jackson, Deputy Minister of Health and Public Welfare for Manitoba; Dr. A. T. Mathers, Dean of Medicine in the provincial university; Dr. Harry A. Gilchrist, of Edmonton, Alta., and Dr. E. W. Johnson, President of the North-West District Dental Society of Minnesota. Dr. A. R. Hurst, of Brandon, thanked the speakers for their eloquent and kindly and encouraging messages. Dr. A. E. Proctor, President of the Association, presided.

Those attending the clinics and dinner exceeded 100, ten of whom were from the States and 17 from country points in Manitoba, Saskatchewan and Ontario.

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Dental Nurses and Assistants

The Winnipeg Dental Nurses and Assistants Association held its monthly dinner meeting on May 6.

As a token of appreciation a bouquet of roses was presented to the President, Miss Juel Grose. A presentation was also made to Miss Jamieson who leaves to be married.

The following members were elected to office for the ensuing year: President, Miss Juel Grose; Vice-president, Miss Jean Gordon; Secretary, Miss Hazel Wylie; Treasurer, Miss Jennie Kuninsky; Social Convener, Miss Evelyn Brethour; Program Convener, Miss Alice Bridgeman; Corresponding Secretary, Miss Peggy Hamelin; Membership, Miss Kay Hoffard; Editorial, Miss Edith Schroeder; Sick and Visiting, Miss Mabel Jackson.

A dance followed the business meeting.

ONTARIO:

Public Dental Health Education

About one year ago Dr. A. E. Higgins, newly elected chairman of the Public Dental Health Committee of the Ontario Dental Association, began laying his plans for a vigorous dental health educational campaign. He has carried out these plans in a most efficient manner. During the Ontario Dental Association convention he published the report of his committee, indicating what they set out to do and what they had accomplished. Great credit is due Dr. Higgins for his virile and untiring leadership in this field of endeavour. Here are a few of the achievements:

Promoted dental educational lectures for public audiences in the Dental Faculty among the fourth and fifth year students and gave prizes to contestants.

Promoted a public dental health speakers group in Toronto to encourage greater interest in public dental education at lectures by members of the profession.

Assisted financially and with personnel the Canadian Dental Hygiene Council in concentrated dental educational work in Clinton, Seaforth, Exeter, Listowel, Elora, Fergus, Mt.

Forest, Arthur, Aurora, Walkerton, Newmarket, Brampton, Alliston, Tillsonburg, Chesley, Kincardine, Meaford, Thorold and Wingham. Over 100 addresses were given to 10,745 children and 2,600 adults.

Supplied dentists with educational material —lantern slides, motion picture films, booklets, etc.; 350 lectures were given to over 20,000 people.

Purchased $700 worth of new educational material and equipment for use by the profession for public lecture purposes.

Filed reliable information in regard to formation of public school dental services with a view to assisting dentists and municipalities with reliable figures as to costs and with advice as to proper procedures for specific requirements in individual cases. Nine municipalities were assisted in this way.

Procured radio material and sponsored one fifteen minute dramatized radio broadcast at a cost of $50.

Sponsored three addresses during the Ontario Educational Association Convention before different groups, one being the Public School Inspector's Association.

One could go on enumerating the splendid services this committee has rendered the dentists of this province and to Dr. Higgins goes much of the credit for energetic leadership.

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Toronto Ladies' Auxiliary

The Ladies' Auxiliary to the Academy of Dentistry and the Canadian Dental Corps held a successful theatre night at Hart House Theatre on May 11. Cyril Campion's play, "Ladies in Waiting," was presented by the Kingsway Drama Club.

Arrangements for the evening were in charge of Mrs. W. G. Trelford and Mrs. L. M. Grose.

Mrs. Vernon Fisk, music convener, arranged a delightful group of two piano numbers for the pleasure of the audience during the intermission. Adele Guild Mitton and Winnifred Smith Stewart were the guest artists.

Proceeds of the evening will be used to carry on the Auxiliary's war work during the summer months.

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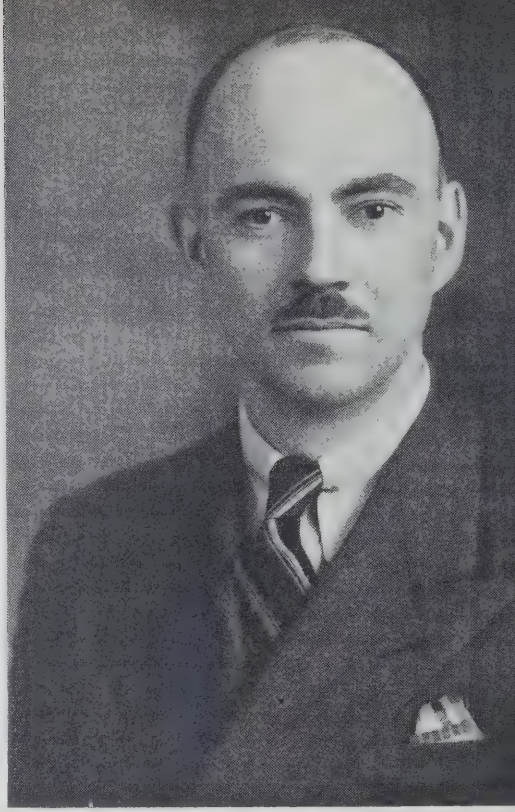
Dental Nurses Alumnae

The April meeting of the Dental Nurses' Alumnae Association was held at the Women's Union, St. George St., with Miss M. Joyner, President, in the chair. The guest speaker, Dr. C. R. Meyers, was introduced by Miss A. Lindsay and Miss E. Crouch moved a vote of thanks.



A. E. HIGGINS

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The annual dinner in honour of the graduating class took place on May 27 at the Granite Club and was followed by the Alumnae annual dance at the King Edward Hotel.

On June 11 the annual meeting was held at the Faculty of Dentistry Building. The yearly reports were submitted by the members of the retiring executive and a vote of thanks was moved by Miss P. Sandham.

The executive for 1940-41 was elected: President, Miss R. Grimmon; Vice-President, Miss E. Courtney; Recording Secretary, Miss M. Gwynn; Corresponding Secretary, Miss H. McKinley; Assistant Corresponding Secretary, Miss D. Aspinall; Treasurer, Miss E. Nattress; Social Convener, Miss A. Kribs; Membership Convener, Miss J. McIntyre; Welfare and Sickness Convener, Miss E. Brown; Advisory Board—Dean A. D. A. Mason, Dr. R. G. Ellis and Dr. W. E. Willmott.

1940 Graduating Class of Dental Nurses from the Faculty of Dentistry, University of Toronto

Seventeen young women whose pictures appear above have just completed their course in dental nursing at the Dental Faculty, University of Toronto. The purpose of this course has been to familiarize the student nurse with the fundamentals of dental practice and to prepare her for the many duties encountered in the dental office. The training each student receives in all phases of dental practice according to a high standard of ethics and efficiency, together with a cultivated professional viewpoint, fits her very admirably to assist the dentist in the conduct of his practice. Moreover, the members of the class each year are quite limited and those admitted are selected from a large number of applicants with a view to choosing young ladies who possess characteristics and qualifications that would seem to fit them for this vocation.

The following are the members of the class: Miss N. H. English, Millet, Alta.; Miss M. H. Kennedy, Copper Cliff; Miss E. M. Mason, Parry Sound; Miss A. H. Reilly, Fonthill; Miss C. M. Scott, Renfrew; and from Toronto: Misses J. C. Alison, H. V. Anderson, P. G. Brice, E. B. Cheshire, L. C. Constable, L. E. Downing, F. I. Fulton, D. M. Hallam, M. E. Hoshal, M. J. Jennings, E. R. Jordan and A. C. Sharman.

Most of these young graduates have secured positions but some are still available. Any dentist who is in need of a capable dental assistant can get information by addressing Dean Arnold Mason, Faculty of Dentistry, 230 College St., Toronto.

Ontario Dental Nurses' and Assistants' Association

HAMILTON—The regular monthly meeting was held at the Wentworth Arms Hotel. The speaker of the evening, Mr. J. Lennox of Denco, Ontario, gave a very interesting and helpful talk on "Tips for the Dental Assistant."

LONDON—The May meeting of this chapter was held in Dr. F. F. Baker's office with Madeline McKay, President, in the chair. Miss

Loretta McCaughey presented the nomination slate and the election of officers resulted as follows: President, Madeline McKay; Vice-President, Dorothy Innes; Secretary, Eileen Green; Treasurer, Helen Huyck.

Dr. E. W. Fuller spoke to the nurses on "The Structure and Function of the Teeth."

SARNIA—The April meeting of the Sarnia Dental Nurses and Assistants was held in the office of Dr. E. L. Kennedy on April 4, with the President, Marjorie Crees, in the chair.

Miss Lila Langford of the Victorian Order of Nurses spoke on First Aid and an open discussion followed.

WINDSOR—The annual meeting of the Essex and Kent County Dental Assistants was held on May 6, in the Canada Building, with Dorothy Scott, President, in the chair.

Demonstrations and papers given at the Ontario Convention were presented. Election of officers took place with the following elected: President, Dorothy Scott, re-elected; Vice-President, Janet Hamel, re-elected; Recording Secretary, Mae Donaldson; Corresponding Secretary, Winnifred Grier; Treasurer, Francis Flinn.

TORONTO—The annual meeting and election of officers of the Toronto Dental Nurses and Assistants took place on May 6 at the Royal York Hotel.

The annual reports showed a very successful year. We are proud that the orthodontia report indicated that three cases have been cared for in spite of our war work commitments.

Miss Madge Buick, the retiring President, was presented with a bouquet of spring flowers and a hearty vote of thanks was tendered her for her splendid efforts of the past two years.

The new officers were all elected by acclamation: President, Irean Checkley; Vice-President, Mildred Brown; Recording Secretary, Kathleen Simpson; Corresponding Secretary, Gladys Campbell; Treasurer, Peggy Robson; Social Convener, Audrey Kribs; Membership Convener, Doris Gregory; Welfare Convener, Ethel Tory.

Plans were made for a boat trip across the lake.

Miss Leta Birkmyre, convener for the "Patriotic Donators and Knitters Club", gave a splendid report of the work carried on by her members, which includes many members of the Toronto chapter. Since last September $499.98 has been raised by voluntary subscriptions, bridge parties, rummage sale and theatre nights. Over and above this actual cash figure, there has been donated — 250 haversacks, 100 Bibles, 100 tooth brushes, 600 cigarettes, 350 cups of ice cream, 20 lbs. chocolate, 20 lbs. biscuits and 250 tubes of tooth paste, which has an estimated value of $500. 150 kits have already been prepared and given to the soldiers at an approximate value of $10 each, making the total value of $1500 in comforts given to the soldiers. In other words, the money has been more than trebled in goods provided. A charter was granted Miss Birkmyre from Ottawa for this work.

ONTARIO—The Ontario Dental Nurses' and Assistants' convention was held at the Royal York Hotel, Toronto, on May 27 and 28. There was a registration of 138 with guests from Montreal, Winnipeg, Detroit and Cincinnati. Guest speakers included Dr. Geo. Teuscher, Chicago; Dr. M. H. Garvin, Winnipeg; Dr. Wallace Mitchell, Hamilton; Dr. F. J. M. Kennedy, London; Lieut.-Col. G. L. Cameron, Canadian Dental Corps Headquarters, Ottawa; Dean A. D. A. Mason, Toronto.

The meetings were officially opened by Dr. G. V. Morton, President Ontario Dental Association and presided over by the President, Mrs. Ferna Leech Cook, Windsor. Eighteen splendid table clinics were given by the members with the first prize going to Toronto again this year. The poster cup was awarded to Thunder Bay chapter for the best poster sent in. Great interest was centred on the "Nutrition House", displayed with the Public Dental Health exhibit, showing a variety of foods in formation.

On the Monday night a banquet was given at which the Rev. Norman Rawson, Hamilton, gave a very fitting and delightful address. Miss Iverna Rae, President Elect, was a very charming hostess.

Tuesday noon a complimentary luncheon was given in the beautiful Roof Garden of the hotel. The head table was attractively decorated with miniature Maypole dancers and spring flowers. Seated at the head table were the officers of the association with Dr. Martha Law, Mr. Wm. McTavish, Miss Helene Meyers, Cincinnati, and the guest speaker for

the occasion, the Rev. Col. G. O. Fallis, O.B.E., D.D., Toronto. A special table had been reserved for the Past Presidents and guests from outside Ontario, including Miss Lillian Fincher, President of the Montreal Assistants, and Miss Lavinia Veal, life member from Winnipeg.

All out of town delegates were received by the President at supper prior to the opening of the convention.

Many splendid papers and skits were presented by the members and a very impressive installation service ushered in the newly elected officers on the last morning. Many words of praise were heard about the whole program.

QUEBEC:

Congress of French-Speaking Dentists

The sixth annual congress of French-speaking dental surgeons of North America was held June 7 and 8 at Three Rivers, Quebec.

Dr. Auguste Massicotte, President of the College of Dental Surgeons of the Province of Quebec, presided. Papers were read by Dr. Benjamin Kornfeld, of New York; Dr. A. A. Blondin, of Manchester, N.H., and Dr. Ernest Gendreau, of Montreal. On Saturday the delegates visited Shawinigan Falls and Grand'Mere. —*The Montreal Star.*

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Testimonial Dinner

The Montreal Dental Club honoured two of its past presidents at a testimonial dinner held at the Summerlea Golf Club on June 5.

The two past presidents to be honoured were Dr. A. L. Walsh, Dean of the Dental Faculty at McGill University, President-elect of the Canadian Dental Association and President-elect of the American Association of Dental Schools; and Major F. W. Saunders, First District Dental Officer of M.D. No. 4 and organizer of the Dental Corps in this district. —*Montreal Herald.*

NOVA SCOTIA:

Cape Breton Dentists Observe Anniversary

Dentists of Cape Breton held a banquet at the Glace Bay Hotel on May 29, to celebrate one hundred years of dentistry. Dr. C. J. W. Beckwith, district medical health officer, gave a lecture on the History of Dentistry and its Relation to the Medical Sciences. Dr. J. A. Burke of Sydney, also spoke on the History of Dentistry.—*Glace Bay, N.S., Gazette.*

BRITISH COLUMBIA:

Annual Meeting

The British Columbia Dental Association's Annual Meeting, held in the Vancouver Hotel, Vancouver, was of a very high standard, Dr. Harry R. Grant, President, and his officers are to be commended for their fine efforts.

Hermann Becks, M.D., D.D.S., F.A.C.D., Assistant Professor of Pathology and Associate Professor of Dental Medicine at the University of California, was the guest speaker. Lectures were delivered on "Normal and Pathological Bone Formation of the Jaws; their Clinical, Histologic, and Roentgenographic Aspect": "Practice of Roentgenographic Interpretations of the Normal and Pathological Bone Structure as Applied to Clinical Cases in all Fields of Dentistry": "How to Prevent Dental Caries.—A Practical Approach: Making Counts in the Mouth of Bacillus Acidophilus and Dietary Recommendations."

The following Table Clinics were presented: Dr. John Ryan, Mt. Vernon, Washington, demonstrated "A Simple Standardized Technique for Mixing Amalgam." The Argue Porcelain Study Club of Seattle, Washington, demonstrated both the direct and indirect methods of class 3 and 5, as well as Porcelain Jacket Crowns. Dr. J. E. Dawson, Vancouver, showed the steps in "Ante Lower Impression Technique" with models and a practical case. Procaine Anaesthesia and Exodontia was demonstrated by means of skulls, mandibles, wet specimens and coloured slides by Dr. Roy West, Seattle, Washington. "Sterilization," by Leslie Robinson, New Westminster. "Cavity Preparation for Amalgam." Dr. P. J. Rumball, Victoria.

Chair Clinics:—Drs. George Ellsperman, Bellingham, Wash., and R. E. Hampson, Seattle, prepared cavities for gold inlays and took impressions. Dr. E. Pottinger, Vancouver Prosthetic Study Club, demonstrated the Ante Lower Impression Technique. Dr. S. Miles, Victoria, Silicate Restoration. Gold Foil as usual at Pacific Coast meetings was well

demonstrated. Dr. D. A. Spratley, Mt. Vernon, Washington, inserted a Class 2. Dr. Harold Cline, Vancouver, Class 3. Dr. George Darts, demonstrated the application of the Rubber Dam and Separators. Dr. L. L. Foote, Seattle, discussed the various stock solutions of Procaine on the market, together with methods of preparation on neutralization of your own solution.

The exhibit of the Canadian Dental Corps of its field equipment was of very great interest. Major E. Fraser Allen, District Officer No. 11 was in charge.

The Annual Business Meeting was held after the clinics, with the election of the following officers.

President, Dr. D. J. Sutherland, Vancouver.
President-Elect, Dr. J. C. Foote, Victoria.
Secretary, Dr. G. D. Stibbs, Vancouver, 925 Georgia St. W.
Treasurer, Dr. R. L. Pallen, Vancouver.
Board of Censors, Drs. George Darts; J. R. Ingledew and P. J. Rumball.

99 members attended the breakfast meeting at 7.30 a.m. while 130 members registered. After this meeting a Cocktail party was held before the dinner meeting. A general open discussion of Dr. H. Becks' lecture on Caries was the high light. A message from Dr. Stephen Moore, President of the Canadian Dental Association was read.

Sunday, at the Vancouver Golf and Country Club, New Westminster, the Annual golf tournament was held.

B.C. Golf Trophy, Low Gross, Drs. Alex Dobbins and Dick Butler tied with Dobbins winning the play off.

Low Net—G. S. Dawe, Runner up, G. D. Seale.

Putting—L. G. Robinson.

Closest to 3rd Hole—H. L. Coutsier, Vernon, B.C.

Highest Score—J. C. Foote, Victoria.

Visitors, Low gross—F. J. Hoelscher, Seattle.

Canadian Army Dental Corps—Major E. Fraser Allen.

Low Gross 24 Handicap—C. S. Dent.

Runner up—George Darts and F. A. Butler, Tie.

ALBERTA:

Centennial Banquet

The members of the Edmonton Dental Society held a Centennial Banquet on May 27 in the Macdonald Hotel to celebrate 100 years of dentistry. Doctor A. E. Jamieson outlined the history of dentistry in Alberta and gave personal histories of some of the early practitioners of the Province. He spoke also of the activities of Alberta dentists during the first World War and gave a list of dentists in the present Canadian Dental Corps. During the meeting members heard a broadcast by Doctor Stephen A. Moore, of London, Ont., President of the Canadian Dental Association.

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Calgary Dental Society

The officers of the Calgary Dental Society for the coming year are as follows:—

President, Dr. J. E. Hesson.
Vice-president, Dr. D. Haworth.
Secretary, Dr. Spencer Lee.

EMPIRE NEWS

GREAT BRITAIN:

Wages of Dental Mechanics

The Glasgow Corporation has agreed to new scales of pay for dental mechanics in their employ. The rates are as follows:—

Mechanics in charge of workshops: £210 a year, rising to £270. Mechanics qualified but not in charge: £156, rising to £203. Apprentices: £32 10s., rising to £94 18s.

A new grade of "improvers," composed of youths who have completed their apprenticeship, will be paid 52s. a week. But if no vacancy for a mechanic occurs within a year, their services will be dispensed with.

In addition to the above rates the Corporation will pay 3s. war advance. —*Br. D. Jour.*

SOUTH AFRICA:

The Pretoria Dental Clinic

(Excerpt from Annual Report of the Chairman of the Board and the Superintendent.)

Since January, 1939, all the children in the forty-three primary schools and three nursery schools in the Pretoria area have been examined twice. The total number of children attending these schools is 12,868, 11,322 of whom require dental attention. Of these 5,864 are non-indigent and 5,458 less privileged.

GENERAL NEWS

British Child Guests (Evacuees)

On request of the Minister of Welfare in the Province of Ontario, the Hon. Eric Cross, that the Canadian Dental Association be represented at a conference relative to British children evacuees, the writer, acting for the president of the C.D.A., submits the following as information, particularly to Ontario dentists, but it may also apply to other provinces as suggested:

The Canadian Government has delegated to the provinces the responsibility of finding suitable homes for British child guests and of ensuring that the children, when placed, will continue to be properly cared for. In Ontario this responsibility has been vested in the Department of Public Welfare through the Children's Aid Societies throughout the province. All children, then, coming to Ontario for placement in private homes should pass through the hands of the Children's Aid Societies. It is assumed that similar procedure is being followed in other provinces where there are Children's Aid Societies and through Provincial Welfare offices where the Children's Aid Societies are not active.

In Ontario, the Ontario Dental Association is heading up the effort to arrange accommodation for children of British dentists in homes of Ontario dentists in co-operation with the Government scheme. Any dentist in Ontario who is willing to take a British child guest into his home should communicate with the O.D.A. office, 86 Bloor St., W., Toronto and then immediately contact the Children's Aid Society in his district and indicate his willingness to take a child guest of an English dentist. The Ontario Dental Association will then cooperate with the Children's Aid Society in placing a suitable child guest in the dentist's home, according to preference indicated in the application, as far as possible.

The Ontario Dental Association, having received a number of applications in response to this appeal and their letter sent to all Ontario dentists, will cable the British Dental Association and indicate to them the number of dental homes available in Ontario. The children will then be sent in the group movement addressed to Ontario. It might be assumed that dentists in other provinces of Canada might act similarly by registering with the secretary of their own provincial dental body and with local Children's Aid or Provincial Welfare Bureau as explained above.

The Ontario Government, acting for the Canadian Government, has made it plain that while it is possible for a parent in England to send his child to a friend in Canada direct, without coming under the Government scheme, yet it is highly desirable that all children should come under the Government scheme and thus both child and host will continue to benefit from any Government assistance and protection that may from time to time be enacted.

T. R. Marshall.

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Dominion Dental Council

The regular meeting of the Dominion Dental Council was held in the Royal York Hotel, Toronto, May 24 and 25. The following provinces were represented: Prince Edward Island, by Dr. Heath McIntyre; Nova Scotia, by Dr. W. C. Oxner; New Brunswick, by Dr. Harry Thomson; Ontario, by Dr. G. H. Campbell; Manitoba, by Dr. H. A. Croll; Saskatchewan, by Dr. A. J. Brett; and Alberta, by Dr. J. M. Dixon. Many matters of interest to Canadian dentists were dealt with.

It was decided tnat in future Winnipeg be made a permanent examination centre. It was also decided to appoint a committee to consider a revision of the clauses of the by-laws governing the preliminary and professional standards required in order to qualify for a D.D.C. certificate that shall be acceptable to all agreeing provinces.

The following officers were elected for the ensuing term: President, Dr. J. M. Dixon, Calgary, Alberta; First Vice-President, Dr. Heath McIntyre, Charlottetown, P.E.I.; Second Vice-President, Dr. G. H. Campbell, Orangeville, Ontario; and Secretary-Treasurer, Dr. A. J. Brett, Regina, Saskatchewan.

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Announce New Harvard School of Dental Medicine

Cambridge, Mass., June 16—Through gifts of $1,300,000 already made towards a required total of $1,550,000, Harvard University will inaugurate in 1941 an entirely new five-

year course in dental education, President Conant announced today. This course will combine the basic knowledge and skill of both medicine and dentistry and is designed to train new types of scientific workers for the attack on the great public health problem of dental disease.

Harvard was the first university in America to establish a dental school and becomes the first university to institute this particular plan in the development of dental and medical education.

This new development has been made possible by the gift of $650,000 from the Carnegie Corporation, $400,000 from the Rockefeller Foundation, and $250,000 from the John and Mary R. Markle Foundation. A balance of $250,000, bringing the total to $1,550,000, is required to fulfil the program; but the University announces it has sufficient expectation of finding a means to provide this balance to proceed with the entire plan.

The President and Fellows of Harvard College have also transferred definitely to the resources of the School of Dental Medicine $1,000,000 tentatively placed at the disposal of the Dental School ten years ago. The permanent new assets for teaching and research in dentistry in Harvard thus total $2,550,000.

"The new program," stated President Conant, "contemplates a more complete and formal integration of dental and medical education than has heretofore been attempted in this country. It is a move in the direction of attacking the great public health problem of dental disease at its source,—through advancement of the study of causes of such disease and of its prevention. It is hoped that through the plan, the scope of adequate dental protection may be extended to large numbers of our people for whom dental attention is not now available."

Under the new program, the Harvard Dental School will be renamed the Harvard School of Dental Medicine. Dental students will register in both the new School of Dental Medicine and in the Harvard Medical School, taking three and one-half years of the same medical courses as other students in the Harvard Medical School, and in addition one and one-half years of specific dental training. Graduates will receive both the M.D. and D.M.D. degrees. Admission to the School of Dental Medicine will be governed by the same standards and the same committee which govern admission to the Harvard Medical School.

"There are now some 70,000 practicing dentists in the United States," said President Conant in explanation of this important and pioneering change. "In general the profession of dentistry in the one hundred years of its existence has established remarkable standards of proficiency and service. The precision and ingenuity of reparative methods developed by its leaders and members has been extraordinary.

"Yet the problem of proper dental protection for our population as a whole has only been partly solved.

"It is stated by the Committee on Economics of the American Dental Association that the 70,000 dentists now practising, devoting their entire time to the care of patients, could not give adequate dental care to more than 20 per cent of our people. This would leave 80 per cent who receive insufficient attention,—a serious proportion, since dental maladies are more or less universal and are at times widely detrimental to general health.

"It hardly seems likely that economic resources will permit multiplying the present provision for dental care by five. Moreover, the provision of such increased care, even if financially feasible in the near future, would not be a real solution of the problem. The real solution would appear to be in advanced knowledge of the causes of dental disease, and resultant improvements in the methods for preventing such disease.

"It is to this type of solution, with the wide human benefits involved, that it is hoped the new Harvard School of Dental Medicine may make its contribution. Without sacrificing the skill and expertness attained under present methods of dental education, the new program will attempt to add to the dentist's equipment a wider and deeper knowledge of medicine, and hence a more favourable background for the advancement of study of essential causes and preventive methods.

"Several foundations, long deeply interested in dental education and research, have contributed generously to the Harvard program. The Carnegie Corporation's gift of $650,000 is in addition to an earlier gift of $350,000, made in 1937. Thus the total contributions

of this foundation to dental developments at Harvard amount to $1,000,000. The gift of the Markle Foundation is for the support of dental research, for which a previous gift of $25,000 was made, bringing total gifts from this foundation to $275,000. The Rockefeller Foundation has added still further to its Harvard benefactions by a gift of $400,000 to the new School of Dental Medicine."

Under the plan, the last class to enter the present four-year dental curriculum at Harvard will be admitted this coming September. The new program will go into operation in the fall of 1941.

This development is a natural continuation of the close and essential relationship between the two professions which has been stressed for many years by the Harvard staff. Five years ago, Harvard founded a University Committee on Research in Dental Medicine, the first of its kind, correlating attention of scientists in dentistry, medicine, chemistry, and biology, on problems of dental research under the Chairmanship of Dean Leroy M. S. Miner of the Harvard Dental School. Dean Miner has been prominent, within the University and in national professional associations, as an advocate of closer integration of the professions of dentistry and medicine.

It is planned to limit admissions to the new School of Dental Medicine to a small number of highly qualified men, who will be prepared for certain particular opportunities in the dental field: in teaching, research, special types of practice, general practice, and public health. For example, it was explained, men will be equipped to attack the manifold problems of dental medicine in private practice as clinical specialists of particularly broad training, or to teach the science of dentistry in dental schools, or to investigate and treat dental disease in hospitals and clinics.

Certain important changes of method in dental education will be involved, bringing dental education at Harvard closer in line with the methods and standards of medical training. The plan envisages the development, in hospital and other dental clinics, of opportunities for training after graduation. It is anticipated also that a number of teaching and research fellowships will be established. As in the Medical School there will be left to postgraduate experience some of the preparation for complete technical proficiency in specialized fields. The program will result also in closer integration of teaching, research and clinical work in dentistry at Harvard.

By bringing dental and medical students together in the basic preclinical and clinical subjects, it is expected that not only will the educational opportunities of the dental student be advanced, but also that there will follow modifications in the teaching of medical students, bringing to them important knowledge of oral medicine and oral disease now lacking in their training.

"This idea is not new to dentistry or to Harvard," Dr. Conant said. "For years the teaching staff of the Harvard Dental School, under the leadership of Dean Miner, has been stressing the close and essential relationships between dentistry and medicine. The new plan is to be regarded as an extension of developments already under way in the Harvard Dental School. It is believed that it will develop both theory and practice in the profession and make dentistry more significant and more important than ever before."

Plans for the School of Dental Medicine have been developed through many months of study by a committee of medical and dental educators. This committee was as follows: C. Sidney Burwell, M.D., Research Professor of Clinical Medicine and Dean of the Faculty of Medicine; Percy R. Howe, D.D.S., Thomas Alexander Forsyth Professor of Dental Science and Instructor in Pathology; Leroy M. S. Miner, D.M.D., M.D., Professor of Clinical Oral Surgery and Dean of the Dental School; Harold C. Stuart, M.D., Assistant Professor of Pediatrics and Child Hygiene; Kurt H. Thoma, D.M.D., Charles A. Brackett Professor of Oral Pathology; Lewis H. Weed, M.D., Professor of Anatomy and Director of the Department of Anatomy, and Director of the School of Medicine, Johns Hopkins University; George B. Wislocki, M.D., Parkman Professor of Anatomy; and S. Burt Wolbach, M.D., Shattuck Professor of Pathological Anatomy.

Convention of Eastern Ontario Dental Association, Chateau Laurier, Ottawa, October 14-15, 1940.

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."

Edward Albert Fitz Patrick, of Winnipeg, Manitoba, aged 68, died June 6 following a short illness. He was graduated from the Royal College of Dental Surgeons of Ontario in 1897 and registered in Manitoba in 1901.

He was a member of the St. Charles Country Club and Assiniboine Lawn Bowling Club. He was a member of Holy Trinity Anglican Church and a life member of Northern Light Masonic Lodge. The officers of this Lodge conducted the funeral services.

Dr. Fitz Patrick is survived by his widow, two brothers and two sisters.

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Samuel H. Thomas, of London, Ontario, aged 57, died June 5 following a month's illness. He was graduated from the Royal College of Dental Surgeons of Ontario and commenced practice in London thirty-six years ago.

He was a prominent member of Askin Street United Church, where he was active in the brotherhood, the choir, and the official board.

Dr. Thomas is survived by one son, one daughter and a sister.

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Leighton Ross Sawyer, of St. Thomas, Ontario, aged 41, died June 7. He served with the 7th Seige Battery C.E.F. during the last war and was wounded in 1918. He had been an enthusiastic participant and promoter of baseball, hockey and bowling; was a member of the Canadian Legion and United Church.

Dr. Sawyer is survived by one sister and an aunt.

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William Henry Mars, of Stavely, Alberta, aged seventy-three, died May 25. He was graduated from the R.C.D.S. of Ontario. Before moving west he practised in Port Elgin, Ont., moving to Lethbridge, Alberta, in 1911, where he continued to practise until 1930, when he moved to Stavely.

He was a Presbyterian, a past master in the Masonic Lodge, and a member of the Royal Arch Masons. In his younger days he was an enthusiastic fisherman and hunter.

Doctor Mars is survived by one son, two daughters and two brothers.

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Harry Paul Barker, of Drumheller, died on May 15, following a prolonged illness.

Dr. Barker was born in 1888 at Guelph, Ontario, coming west with his parents to reside at Granum, Alberta, in 1903. He was graduated from North-Western University Dental School at Chicago in 1918 and practised at Vulcan, Alberta, for nineteen years. In 1937 he commenced practice at Drumheller, Alberta, and remained there until the time of his death.

Dr. Barker was married to Margaret Pickard, of Sackville, N.B., in 1927, and besides his widow leaves one daughter, Joan, aged ten years.

. . . SECTION FRANÇAISE . . .

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Le Sixième Congrès des Dentistes de Langue Française de l'Amérique du Nord

Trois-Rivières, les 7 et 8 juin dernier, fut le théâtre d'une de ces recrudescences de vie scientifique et sociale dentaire, comme il en apparaît périodiquement dans notre province.

Cette fois cependant ce congrès prit une allure de fête, qui lui donna un charme particulier. Il y a probablement plusieurs facteurs responsables de cette tournure. La présence en très nombre des femmes des dentistes, le caracère particulier de la ville des Trois-Rivières, le bon goût qu'ont eu les organisateurs mêlé aux plaisirs de la ville, les joies de la campagne et du voyage, ont fait de cette réunion un événement utile à notre profession en même temps que très agréable à tous ceux qui y ont pris part.

Comme nous n'avons pas encore reçu de rapports détaillés du congrès, nous publierons en entier ceux, d'ailleurs très bien faits qu'en a donné le Nouvelliste, un journal des Trois-Rivières et les deux discours dont nous avons pu nous procurer le texte.

Quant aux travaux scientifiques, nous en ferons l'appréciation plus tard, soit en les analysant soit en les publiant in extenso.

LA REDACTION.

Les Dentistes Nous Donnent l'Exemple du Corporatisme

En voulant créer chez eux une coopérative d'achat

C'est ce que déclare Mgr Comtois en réponse au Dr Philippe Hamel.—Ouverture du 6e congrès des dentistes.—Banquet.

Son Exc. Mgr A.-O. Comtois, évêque des Trois-Rivières, a appuyé hautement la doctrine du corporatisme, dans un discours qu'il prononçait, hier soir, au Château de Blois, à l'issue du grand banquet de l'Association des chirurgiens-dentistes de langue française de l'Amérique du Nord, convoquée, aux Trois-Rivières pour son sixième congrès annuel.

La déclaration de notre évêque a suivi celle de M. le Dr Philippe Hamel, de Québec, ancien député provincial, qui a préconisé l'organisation d'une coopérative d'achat parmi les dentistes de l'association. Avec cette coopérative, les dentistes pourront obtenir les instruments à meilleur prix et seront à même, par conséquent, de mieux résister, financièrement, à l'incapacité générale où se trouvent leurs clients de les payer convenablement.

Mgr Comtois a félicité les dentistes de donner ainsi l'exemple du corporatisme aux autres professions, et il a souhaité que l'association des dentistes portât, un jour, le nom de corporation des dentistes.

Le discours de Son Excellence et de plusieurs autres personnalités laïques ont été prononcés au magnifique dîner qui clôturait, hier soir, la première journée du sixième congrès des dentistes de langue française. Une autre radieuse journée s'ouvre, aujourd'hui, pour les congressistes qui se rendront à Shawinigan et à Grand'Mère.

Rehaussé par la présence des représentants de l'autorité religieuse, provinciale et municipale, le congrès des dentistes a constitué, jusqu'ici, un véritable triomphe de la profession.

Il s'est ouvert, hier midi, au cours d'une brève manifestation, qui a eu lieu à l'auditorium De LaSalle, manifestation au cours de laquelle les allocutions de bienvenue et de félicitations ont été prononcées par M. le Dr Auguste Massicotte président du congrès; Son Exc. Mgr Comtois, Son Honneur le maire Atchez Pitt et M. le Dr Adolphe L'Archevêque, président-général de l'association, qui ont adressé la parole.

Les congressistes ont tenu, au cours de l'après-midi, des conférences pour eux-mêmes, des conférences dans les écoles pour les écoliers, des cliniques, etc., en plus de participer à différentes activités d'ordre social.

Le clou de la journée d'hier devait être le banquet.

Le banquet, où on remarquait, entre autres personnalités M. le Dr Auguste Massicotte, des Trois-Rivières, président du congrès, ayant à ses côtés, à la table d'honneur, Son Exc. Mgr A.-O. Comtois, M. le Dr A. Bossinotte, inspecteur des unités sanitaires, représentant l'hon. Henri Groulx, secrétaire provincial et ministre de la Santé, M. le Dr Adolphe L'Archevêque, président-général de l'association, M. le Dr Georges Pelletier, vice-président du Collège des chirurgiens-dentistes de la province de Québec, M. le Dr Eudore Dubeau, doyen de la faculté de chirurgie-dentaire de l'Université de Montréal, Son Honneur le maire Atchez Pitt, M. le commandeur C.-N. de Blois, président de l'Association des médecins de langue française de l'Amérique du Nord, M. le Dr Charlemagne Baribeau, président de la Société Médicale, M. le chanoine Joseph Désilets, supérieur du séminaire, M. le Dr R. Leduc, député fédéral de Wright, M. le Dr Philippe Hamel, de Québec, vice-président de l'association, etc.

Le Secrétariat Provincial. M. le Dr A. Bossinotte, inspecteur des unités sanitaires,

a apporté aux congressistes les voeux et les félicitations de l'hon. Henri Groulx, secrétaire provincial et ministre de la Santé. Il a exposé aux dentistes que, de plus, le ministère de la Santé coopérerait avec les organismes d'hygiène dentaire, pour favoriser la santé de la population québecoise plus spécialement celle des écoliers.

Quelques centaines de délégués participent à ce congrès trifluvien des dentistes de langue française de l'Amérique du Nord. La plupart sont accompagnés de leur dame. Ce qui a contribué à faire beaucoup plus chic au banquet d'hier soir.

Ce congrès — plusieurs orateurs l'ont souligné — coïncide avec le centenaire de la profession des dentistes. Cette profession est passée depuis cent ans de progrès en progrès. Elle connaît maintenant une compétence dont bénéficie l'humanité toute entière.

Les orateurs ont aussi particulièrement attiré l'attention de leurs auditeurs sur la campagne éducative qu'on doit continuer chez nos gens pour les faire bénéficier de l'hygiène dentaire. Le Dr Bossinotte n'a-t-il pas exposé dans son discours que 80 pour cent de notre population souffrait de carie dentaire.

Le Prochain Congrès. Le prochain congrès des dentistes aura lieu à Québec l'an prochain.

Jacques Girard. Le ténor canadien-français Jacques Girard, de l'Opéra-Comique, a interprété plusieurs pièces classiques au cours du banquet d'hier soir. Il a été rappelé plusieurs fois. Les convives ont estimé la présence de Jacques Girard comme un geste gracieux de la part des organisateurs du congrès, qui n'ont rien négligé pour intéresser leurs hôtes.

Les Discours. Voici un résumé des allocutions qui ont été prononcées au banquet:

Le Président. Le président du dîner, M. le Dr Auguste Massicotte, donne d'abord lecture de quelques télégrammes reçus d'officiels empêchés d'assister. Ces télégrammes viennent de l'honorable Henri Groulx, secrétaire provincial et ministre de la Santé, de l'honorable Maurice Duplessis, chef de l'opposition, de Mgr Olivier Maureault, recteur de l'université de Montréal, de MM. les Drs J. Armitage, Joseph Nolin, J.-D. Bachand et J.-W. Rooney.

M. Massicotte souhaite ensuite la bienvenue aux hôtes d'honneur et aux congressistes et il remercie tous ceux qui, de près ou de loin, ont travaillé à l'organisation du congrès.

Il salue ensuite les principaux invités, Son Exc. Mgr Comtois, le Dr A. Bossinotte, représentant du provincial, son honneur le maire et les autres.

Le motif de ce congrès, dit-il ensuite, n'est pas tant de faire une fête de famille que d'apprendre à servir plus fidèlement les intérêts de notre profession. De telles réunions contribuent à l'avancement et au relèvement de notre société.

Le Dr L'Archevêque. Le Dr Adolphe L'Archevêque, président-général de l'Association, prenant la parole à son tour, parle de l'importance de l'hygiène dentaire. Il réfère plus spécialement à l'expérience fructueuse qui a été faite par la commission scolaire de Montréal pour l'hygiène dentaire dans ses écoles, expérience qui s'étend peu à peu à toutes les villes de la province.

Le Dr L'Archevêque demande au représentant du gouvernement provincial, M. le Dr Bossinotte, de transmettre à l'hon. Groulx, secrétaire provincial, les remerciements des dentistes de langue française pour la création à Québec d'un poste d'hygiène dentaire confié à M. le Dr Ernest Charron. Et il demande que des propagandistes d'hygiène dentaire comme le Dr Charron, soient nommés dans toutes les régions de la province.

Le Dr L'Archevêque remet ensuite au Dr Auguste Massicotte, président du congrès, le premier diplôme d'honneur au mérite décerné par l'association, pour reconnaître les services rendus à ses confrères par le distingué titulaire. Ce diplôme a été créé au cours d'une réunion tenue, cette semaine, par le comité exécutif de l'association.

Le Dr Bossinotte. Le Dr A. Bossinotte, représentant de l'hon. Groulx, apporte aux congressistes les hommages et les voeux de celui-ci.

Il expose le fait que, dans notre province, 90 pour cent des enfants souffrent de carie dentaire; ce qui constitue chez notre peuple une tare dangereuse. C'est pourquoi, ajoute-t-il, nous occupons-nous de faire subir annuellement un examen dentaire à 200,000 ou 225,000 écoliers.

Le Dr Bossinotte croit que la collaboration sera de plus en plus étroite entre le ministère de la Santé et les organismes d'hygiène dentaire. L'hon. Groulx et son sous-ministre, M. Grégoire, dit-il, vous assurent de leur plus entière collaboration. Nos efforts réunis empêcheront notre société de crouler sous le poids de la carie.

Le Dr. Pelletier. Le Dr Georges Pelletier, vice-président du collège des chirurgiens-dentistes de la province de Québec, félicite les organisateurs du congrès. Il reconnaît que l'exemple des dentistes trifluviens, plus encore à ce congrès qu'aux congrès précédents, peut être cité aux dentistes des autres centres.

Et puis il fait ressortir le fait que, en Amérique, 50 pour cent au moins de la population n'a jamais pensé bénéficier d'hygiène dentaire.

Le Dr Hamel. Proposant la santé de l'association, le Dr Philippe Hamel, de Québec, déclare que "ni malade, ni prospère" notre profession a progressé au point de vue culturel . . . Mais que de chemin, ajoute-t-il, il nous reste à parcourir.

L'orateur préconise une culture universitaire plus médicale chez les dentistes. La chirurgie dentaire, expose-t-il, est la fille de la médecine.

Le Dr Hamel établit ensuite le paradoxe qui se trouve dans la profession du médecin et dans celle du dentiste. Médecin et dentiste travaillent à enrayer les maux dont souffre l'humanité et à cause desquels ils gagnent leur vie. Le devoir du médecin et du dentiste est de guérir son malade le plus rapidement et le mieux possible; pourtant, c'est à cause de la souffrance des autres que les deux gagnent leur vie.

Passant ensuite à la partie la plus intéressante de son bref discours, le Dr Hamel expose la situation précaire des dentistes qui vivent parmi un peuple qui n'a pas d'argent. Il montre comment les dentistes dans beaucoup de cas sont obligés de soigner des malades qui n'ont pas le moyen de les payer.

Que faire? demande le Dr Hamel. Augmenter nos prix? Ce serait malheureux et pour la population et pour les dentistes eux-mêmes. Le Dr Hamel préconise plutôt l'organisation d'une coopérative d'achat au sein de l'association, coopérative qui permettra aux dentistes d'obtenir à bien meilleur prix des instruments qu'ils paient actuellement et individuellement les yeux de la tête.

Le Dr Dubeau. Le Dr Eudore Dubeau, doyen de la faculté de chirurgie dentaire de l'université de Montréal, annonce aussitôt que, dès septembre des cours spéciaux de médecine seront donnés à la faculté afin d'améliorer la culture générale des futurs dentistes.

Il ajoute qu'il est fier de tous ses diplômés, qui ont contribué à tour de rôle à grandir la profession dentaire.

Il souligne le fait que ce congrès coïncide avec le centenaire de la profession dentaire, centenaire célébré, cette année même, à Baltimore, en présence de milliers de dentistes.

Le Dr Ratté. Le Dr Gustave Ratté, de Québec, vice-président de l'association, invite tous les congressistes à se réunir à Québec l'an prochain. Les congressistes applaudissent frénétiquement à son invitation, et il est entendu, séance tenante, que le prochain congrès des dentistes aura lieu dans la capitale.

Mgr Comtois. Son Excellence Mgr Comtois félicite les dentistes du succès, commence son discours avec un humour irrésistible.

"Quand on se trouve en présence d'autant de dentistes, dit-il, on ne peut s'empêcher d'une certaine émotion, de certains frissons."

Citant ensuite son auteur favori, saint Augustin, Mgr Comtois expose que le Bon Dieu permet l'existence du mal dans le monde, parce qu'il est assez puissant pour en tirer du bien.

Pourquoi, continue-t-il, Dieu permet-il qu'un Hitler fasse tant de mal à l'heure actuelle dans le monde? Si Dieu permet l'existence d'Hitler, si Dieu permet la guerre, c'est pour en tirer du bien; c'est peut-être pour nous faire mettre à genoux. L'ancien gouvernement persécuteur de France est le gouvernement qui a participé aux prières publiques qui ont été faites à Notre-Dame de Paris pour demander la fin de la guerre. Le Bon Dieu tirera du bien de cette guerre que nous gagnerons, espérons-le.

Mgr Comtois, après avoir fait un exposé qui fait réfléchir profondément, dérida son auditoire en posant la question suivante: Pourquoi le Bon Dieu permet-il l'existence du mal de dents? C'est parce qu'il y a des dentistes. S'il n'y avait pas de mal de dents, il n'y aurait pas de dentistes. Et, s'il n'y avait pas de dentistes, il n'y aurait pas de mal de dents. C'est un cercle vicieux dont il nous est impossible de sortir. Mais il y a du bien à cela.

Référant au discours du Dr Philippe Hamel, Mgr Comtois appuie l'idée du corporatisme et félicite les dentistes de donner eux-mêmes aux autres professions l'exemple de corporation en pensant à former une coopérative d'achat au sein de leur corporation.

Je souhaite, conclut-il, à l'association des dentistes de devenir la corporation des dentistes.

Le Dr Perreault. Le Dr Ferdinand Perreault, de Montréal, vivant et spirituel, propose ensuite la santé des dames.

Heureuse gagnante. Mme Denis Forest, de Montréal, a gagné la magnifique lampe torchère, don de la maison J. L. Fortin, qui a été tirée au sort à l'issue, du dîner, parmi les congressistes.

L'ouverture. L'ouverture officielle du congrès eut lieu, au cours d'une brève cérémonie, à l'auditorium De LaSalle, rehaussée par la présence de Son Exc. Mgr A.-O. Comtois, évêque des Trois-Rivières, et de Son Honneur le maire Atchez Pitt.

Le congrès s'ouvrit, au début de l'avant-midi, par l'enregistrement des dentistes, au Château de Blois, et, durant tout l'avant-midi, de nombreuses cliniques furent tenues par les divers dentistes de notre ville et du dehors.

Un groupe considérable de dentistes y assista. Plusieurs discours y furent prononcés par le Dr Auguste Massicotte, président du congrès, le Dr Adolphe L'Archevêque, de Montréal, Son Honneur le maire Atchez Pitt, Son Exc. Mgr A.-O. Comtois, évêque des Trois-Rivières.

Le Dr Auguste Massicotte commença son discours en disant, qu'en sa qualité de président actif du congrès, il était très heureux d'annoncer l'ouverture officielle du congrès des Trois-Rivières et en disant que le congrès des Trois-Rivières s'ouvrait sous les plus heureux auspices. Il dit que les dentistes trifluviens étaient heureux d'avoir reçu la visite d'un nombre aussi considérable de dentistes du dehors. Il adressa un salut tout particulier aux dames et aux officiers supérieurs, venus des autres parties de la province. Il fit, rapidement, l'éloge de tous les chirurgiens-dentistes, qui, au cours des dernières années, ont occupé la charge de président des chirurgiens-dentistes de langue française de l'Amérique du Nord.

Son Honneur le maire Atchez Pitt souhaita ensuite la bienvenue de la ville des Trois-Rivières aux dentistes venus du dehors.

Le Dr L'Archevêque, de Montréal, président des médecins de langue française de l'Amérique du Nord, se déclara heureux de la tenue de ce premier congrès, en-dehors de la ville de Montréal. Il déclara que le congrès était important, à deux points de vue: au point de vue hygiène dentaire et pour le perfectionnement de la science. Le Dr L'Archevêque cita, tout particulièrement, le cas de la ville de Bridgeport qui a eu

le moindre taux de mortalité aux Etats-Unis. Il remercia le gouvernement provincial, qui a augmenté son octroi d'un montant de $300. Il félicita les organisateurs du congrès des Trois-Rivières et particulièrement ceux qui ont quitté leurs bureaux pour venir participer aux assises trifluviennes.

Son Exc. Mgr A.-O. Comtois fut l'orateur suivant. Il débuta avec humour et déclara qu'il y avait deux choses dont il fallait tenir compte dans la vie: l'expérience et la foi. Pour ceux qui ne croient pas à l'expérience, dit-il, il reste la foi. Aux dentistes, il appartient de faire des expériences, dit-il, et à leurs clients, il appartient d'avoir la foi. "Il n'y a pas très longtemps, j'ai fait un acte de foi . . . J'en porte, aujourd'hui, la marque. Je ne pouvais refuser au président des dentistes de venir à l'ouverture de leur congrès. Je savais que je venais de contracter une dette envers les dentistes, et que la note n'était pas payée. Je viens, ici, manifester, une fois de plus, que l'Eglise n'est pas opposée à la science. Au contraire, Elle veut encourager tout ce qui peut développer la science, dans la société moderne."

Au cours de l'avant-midi d'hier, de nombreuses cliniques furent tenues, dans la grande salle du Château de Blois. Elles furent suivies de la manifestation qui marqua l'ouverture officielle du congrès, à l'auditorium De LaSalle, et la prise d'une photographie, en face du bureau de poste.

Dans l'après-midi, un groupe considérable de dentistes assista à deux causeries. La première fut prononcée par le Dr A. Blondin, de Manchester, qui fut présenté par le Dr Denis Forest de Montréal. La deuxième eut lieu, un peu plus tard, et fut prononcée par le Dr Ernest Gendreau, directeur de l'Institut de radium de Montréal. La réunion était sous la présidence du Dr Ernest Charron, de Montréal.

Dans l'après-midi, les dames furent reçues au club de golf Ki-8-eb. Les dentistes se rendirent les rejoindre, quelques heures plus tard.

Dans la soirée, tandis que les dentistes se réunissaient, dans la grande salle du Château, pour le banquet officiel, quelques centaines de personnes emplissaient la salle de l'hôtel de ville, pour assister à une grande séance éducationnelle présidée par le Dr Jean-Paul Beaudet, médecin en charge de l'unité sanitaire des Trois-Rivières. Plusieurs films furent montrés à la foule, qui assista aussi à la représentation d'une pièce interprétée par une troupe de Montréal, intitulée "Mme Lecoq et M.".

Sur la fin de l'avant-midi, plusieurs conférences dentaires furent données, dans cinq écoles de notre ville, par les docteurs Gabriel Lord, Amherst Hébert, J.-Gaston Lajoie, Janvier Coupal et Maurice Donigan.

Dans les salles du Château, eut lieu, en permanence au cours de la journée, une exposition d'exhibits commerciaux, présentés par plusieurs compagnies de l'étranger.

Chaude Réception de Shawinigan au Congrès des Dentistes

Plusieurs centaines de goûters offerts par la ville au Cascade

La fin du plus beau congrès des dentistes.—Visite à Grand'Mère.—Grand bal de clôture.—L'impression des étrangers.

La ville de Shawinigan, a reçu samedi un des plus importants congrès qui se soient réunis aux Trois-Rivières, le congrès de l'Association des chirurgiens-dentistes de langue française de l'Amerique du Nord. La ville-soeur a illustré, une fois de

plus, la grande unité de la région mauricienne en recevant avec la même cordialité, qu'ils l'ont été ici, quelques centaines de dentistes et leurs dames venus de tous les coins de la province de Québec, des Maritimes et de la Nouvelle-Angleterre.

Un vin d'honneur et un lunch furent servis à 4 heures 30, samedi après-midi, à l'hôtel Cascade, de Shawinigan. Son honneur le maire J. A. Bilodeau y représentait la ville de Shawinigan. C'est lui qui a souhaité la bienvenue aux congressistes.

Ceux-ci se sont, par la suite, rendus à Grand'Mère, avant de revenir aux Trois-Rivières où ils prenaient part au grand bal de clôture dans la soirée.

Samedi fut la deuxième et dernière journée du congrès de l'association des chirurgiens-dentistes. Comme celle de vendredi, qui fut couronnée par un magnifique banquet, elle constituera une autre date mémorable dans les annales de la profession.

Cette deuxième journée du congrès a débuté par des conférences, dont un grand nombre de dentistes ont voulu profiter. Notons plus particulièrement la venue du Dr. Benjamin Kornfeld, conférencier de renommée internationale délégué ici par l'université de New-York et qui a donné aux dentistes français une causerie technique dont ils ont tiré nombre de précieuses leçons, utiles à eux et aux clients qu'ils servent.

A midi, un coquetel fut servi gracieusement à tous dans les jardins Normandie du Château de Blois. Et les congressistes sont partis pour Shawinigan vers deux heures 30, après avoir pris le déjeuner à la salle François Premier du Château.

A Shawinigan, quelques vannes du barrage avaient été ouvertes. Ce qui a permis aux dentistes étrangers de connaître un peu de la splendeur de nos chutes, qu'ils ont pu admirer à loisir pendant une demi-heure, avec une permission spéciale de la Shawinigan Water and Power.

Par bonheur, les congressistes ont pu trouver assez de temps pour aller visiter la coquette ville de Grand'Mère, dont ils ont fait le tour rapidement, avant de revenir aux Trois-Rivières pour le dîner et pour le grand bal du soir.

Le Congres

Ce congrès, dont les Trifluviens conserveront longtemps le souvenir, a été organisé par les dentistes des Trois-Rivières, sous la direction de leur président, M. le Dr Auguste Massicotte. Tout le monde s'est mis à l'oeuvre. Tout le monde a travaillé durant plusieurs semaines, au cours desquelles un secrétariat a fonctionné régulièrement. Grâce à l'aide du gouvernement de la province, des autorités municipales des Trois-Rivières et de la région, qui y sont allés de généreux octrois, ils ont pu faire mieux encore. Ils ont fait royalement.

450 congressistes ont été reçus ici.

C'était le sixième congrès de leur association, et le premier tenu en dehors d'un grand centre comme Montréal.

On nous a dit—ce sont des étrangers qui l'ont dit—que le congrès des Trois-Rivières était le mieux réussi de tous les congrès des dentistes. Les congressistes ont particulièrement été sensibles au caractère d'intimité de fête de famille qu'un congrès peut prendre aux Trois-Rivières. Ils ont été sensibles aussi, et très à la chaude réception que leur ont faite les Trifluviens.

Le Dr Massicotte

Le Dr Auguste Massicotte, président du congrès, s'est déclaré fier des résultats du congrès et très content de la coopération offerte par les dentistes Trifluviens pour son organisation. On sait que le Dr Massicotte a reçu, vendredi soir, au banquet du Château, le premier diplôme d'honneur de l'Association des chirurgiens-dentistes de l'Amérique du Nord. Ce diplôme, que l'exécutif de l'association, a créé au cours de la semaine, a été décerné au Dr Massicotte pour les services inestimables qu'il a rendus à ses confrères dentistes et à ses concitoyens.

Les Etrangers

Parmi les nombreux dentistes qui ont cru devoir laisser leurs occupations pour venir prendre part ici à ce congrès de deux jours, nommons M. le Dr Benjamin Kornfeld, de l'université de New-York, MM. les Drs Victorien Dubé et A. M. Laporte d'Edmundston N.B., J. René Tassé de Worcester, Mass., Amos Morin de Central Falls R.I. et A. A. Blondin, de Manchester N.Y. Et nous pourrions en nommer d'autres venus des centres les plus éloignés du Québec.

A Shawinigan

Comme nous le disons plus haut, la ville de Shawinigan a magnifiquement fait les choses samedi après-midi.

Et ce, en dépit de la mauvaise température que nous avons connue en fin de semaine.

Il était d'abord entendu, d'après le programme, que son honneur le maire J.-A. Bilodeau souhaiterait sa bienvenue devant l'hôtel de ville.

La pluie l'en a empêché.

La "cérémonie" s'est donc déroulée dans les grandes salles du Cascade Inn.

Son honneur le maire Bilodeau, en souhaitant la bienvenue aux congressistes, a fait une brève mais effective publicité à sa ville. Il a insisté surtout sur la collaboration qui existe, à Shawinigan, entre les autorités municipales et les grandes industries. Il a dit, en particulier, que les industries payaient 82 pour cent des taxes à Shawinigan.

M. le Dr Auguste Massicotte s'est fait l'interprète de ses confrères pour remercier la ville de Shawinigan de son hospitalité.

M. le Dr Frédéric Houde agissait comme maître de cérémonies, on entendit ensuite quelques brèves allocutions de M. Polydore Beaulac, député provincial de St-Maurice, de M. le Dr Philippe Hamel, de Québec, ex député provincial, et de M. le Dr R. Leduc, député fédéral de Wright.

Chacun a chanté les mérites des organisateurs du congrès. L'hospitalité française de Shawinigan a été joyeusement reconnue.

MM. les échevins Cléophas Lemay et Philémon Trudel, M. Robert Dorion, gérant municipal, et le chef de police J.-N. Longval étaient présents.

La réception s'est déroulée dans la plus franche gaieté. Il y eut musique et chant. Et ce sont les dentistes eux-mêmes qui ont été les artistes au programme.

Conferences

Des conférences ont été données, samedi matin, à 9 heures, par MM. les Drs Benjamin Kornfeld, de New-York, et Gérard Plamondon, commissaire d'hygiène de Montréal.

Bref Aperçu sur l'Orthodontie *(suite)*

Résumé d'une conférence donnée à la Société Médicale du district de Joliette.

LOUIS LEPINE, D.D.S., Orthodontiste

Traitement: Thérapie des appareils.—Après le diagnostic, l'analyse, l'histoire et la classification du cas, on peut procéder au traitement proprement dit, en ayant bien soin de consulter régulièrement le dossier. On traite avec des appareils de métal précieux ou d'acier inoxydable. Le matériel d'or platiné, à cause de sa malléabilité, de sa flexibilité, de son élasticité et de son point de fusion, est le plus employé. Un matériel d'orthodontie doit pouvoir fournir une force à la fois légère et régulière. Il faut chercher à obtenir le maximum de mouvement avec le minimum d'irritation due au traumatisme qui se rencontrerait en voulant aller trop vite. L'appareil se répartit en

deux groupes, le groupe des appareils actifs et celui des appareils passifs, d'où le traitement actif pour placer les dents dans leur position respective désirée, ensuite les retenir là par un appareil de rétention, traitement passif. Ce n'est pas tout de remettre les dents en position normale, il faut les retenir, les consolider dans cette nouvelle position afin qu'elles ne reviennent pas à leur malposition d'origine.

L'appareil d'Angle, pour ne décrire que le plus employé, comprend une bande métallique cimentée sur une molaire disponible de chaque côté de la bouche, laquelle dent sert d'ancrage aux appareils. De cette bande partent un appareil labial amovible et cylindrique longeant le milieu de la face externe des dents, et un appareil lingual amovible qui touche la face interne gingivale de toutes les dents. Les deux vont rejoindre la bande opposée. Sur ces arches principales viennent se souder des fils de calibre inférieur pliés en forme de ressorts simples, lesquels viendront faire pression sur les dents à replacer dans une direction ou dans une autre suivant la façon dont on les dispose. On peut faire subir effectivement aux dents tous les mouvements possibles avec une bonne technique: extrusion et intrusion, rotation, mouvement de bascule, déplacement dans tous les sens, etc.

La thérapie des appareils est la partie technique, mécanique de l'Orthodontie, et encore, avec la meilleure technique possible, si on n'a pas conscience de ce qui se produit dans le traitement, on risque à coup sûr de ne pas atteindre le but de l'intervention. Car après tout, en déplaçant une et même plusieurs dents solidement implantées et attachées dans une alvéole dentaire osseuse par la membrane péridentaire, on cause naturellement un traumatisme à cette membrane péridentaire qui entoure toute la racine de l'os et à l'os lui-même. Les dents en sont quelque peu ébranlées temporairement. Si, par exemple, on incline une dent, il se produit du côté de la pression orthodontique une résorption du tissu osseux adjacent. Du côté opposé, il y a croissance de l'os pour venir combler le vide, mais, puisque la résorption est toujours plus rapide que la croissance simultanée, il se produit un vide temporaire et la dent devient ébranlée. Dans la période de rétention, on immobilise la dent dans sa nouvelle position jusqu'à ce que la croissance osseuse vienne la consolider ainsi en permanence et la période de rétention cesse.

L'appareil de rétention de caractère passif, un peu différent de l'appareil actif, consiste dans un genre de dentier partiel modifié et adapté au bord gingival interne de chaque dent. De ce dentier part un fil qui vient immobiliser les dents par la face externe pendant que la nature fait son oeuvre de consolidation osseuse. Très souvent l'assistance du médecin, de l'orthopédiste, du chirurgien est requise en orthodontie dans les cas, par exemple, de déséquilibre fonctionnel de l'organisme, de troubles glandulaires, de l'ankylose fibreuse du maxillaire, de prognatisme ou d'opistognatisme exagéré, de macroglossie, d'amygdalite, de respiration défectueuse, de frein labial anormal, de bec de lièvre, de palais fissuré, etc. On pourrait parler longuement de la coopération du médecin spécialisé ou non dans le succès du traitement des irrégularités dentaires.

Durée: Quant à la durée du traitement, elle ne peut être soumise à des règles définies: elle varie avec chaque cas. Tout de même, pour en donner une idée, elle peut approximativement durer de douze à vingt-quatre mois et même plus. On rencontre des cas très prononcés où il faut jusqu'à trente-six mois et plus, y compris la période de rétention proportionnellement équivalente au tiers de la durée du traitement actif. Bien que la durée semble longue au premier abord, elle est raisonnable si l'on considère les phénomènes qui se produisent et les tissus sur lesquels on travaille. Il est inutile de hâter l'intervention, on risquerait de causer un traumatisme néfaste à la dent et aux tissus adjacents.

Age propice: Il en est de même, pour l'âge propice à l'intervention: elle varie avec chaque cas. On fait souvent allusion ici à une fracture de la jambe ou du bras bien que la ressemblance soit assez éloignée. Une fracture ordinaire et simple guérit bien

mieux dans les conditions normales dans le jeune âge que dans l'âge avancé, parce qu'on y rencontre des périodes de croissance active et localisée. De même, en orthodontie, puisqu'on active la croissance, on aura plus de succès en traitant à l'époque de ces activités de croissance. La croissance des maxillaires et de la dentition d'un sujet est répartie en étapes définies jusqu'à l'âge de 20 ans à peu près. Avant six ans, alors qu'il y a croissance générale des maxillaires, on intervient seulement pour la prévention. Après huit ans, les maxillaires cessent de croître latéralement pour le moment, il y a croissance latérale plus accentuée. Ensuite, à l'époque moyenne de l'éruption des dents de sagesse, troisièmes molaires, la croissance a ralentie graduellement pour laisser les maxillaires à leur volume permanent. Conséquemment, au point de vue physiologique, on intervient si possible au cours de ces époques de croissance active. Tout de même, après l'âge de vingt ans, le traitement bien que plus long naturellement est quand même très effectif. Somme toute, la période idéale à tout point de vue pour le traitement effectif d'orthodontie curative est entre huit et dix-huit ans.

Pronostic: Maintenant, pour terminer, quel pronostic pouvons-nous formuler d'une intervention? On fait le traitement orthodontique d'abord, parce qu'il y a irrégularité dentaire, ensuite parce que cette irrégularité peut être pathologique avec répercussion dans tout l'organisme. Elle rend difficile l'hygiène dentaire et favorise ainsi la carie dentaire et les gingivites: elle dérange l'équilibre de support masticatoire entraînant une occlusion traumatique et ses effets dommageables sur les tissus dentaires adjacents et la digestion. Elle affecte le contour facial, l'esthétique de la dentition et le parler avec leurs malheureux effets psychologiques et sociaux. Si l'on enraye tous ces torts ou du moins la majeure partie, l'intervention a porté ses fruits. Pour cela, il faut enlever la cause qui les a produits, c'est-à-dire corriger la malocclusion. Personne ne peut être sûr de la stabilité de ses résultats finals sans que la cause de l'irrégularité dentaire ait été éliminée. Dans le traitement, il ne s'agit pas seulement de remettre les dents en position fonctionnelle normale mais aussi d'enrayer la cause de la difformité. En orthodontie, le pronostic, d'après Strang, peut se définir comme la prédiction des tendances futures d'un cas d'irrégularité dentaire s'il n'était pas traité et de déterminer le degré de succès permanent qui accompagnera la stimulation mécanique et fonctionnelle. Les conditions pouvant influencer un pronostic en orthodontie peuvent se rapporter aux facteurs suivants: 1.—L'étiologie de la malocclusion, si on peut enrayer la cause de la malocclusion partiellement ou en entier, comme on l'a dit plus haut, le pronostic est favorable. 2.—La coopération du patient et des parents, ce facteur est indispensable. 3.—La stabilité de l'os, qui est influencée par la malocclusion ou la rachitisme chez l'enfant. 4.—Le degré de malocclusion, naturellement, plus l'irrégularité dentaire est accentuée plus difficile sera l'intervention et plus défavorable sera le pronostic. 5.—Les anomalies osseuses, ou les conditions pathologiques des dents absentes, les dents incluses, les racines déformées, etc., tout entre dans la détermination du succès de l'intervention; par conséquent, la radiographie est indispensable sur tout le cours du traitement.

Voilà, en théorie, les facteurs qui peuvent aider le pronostic dans une intervention orthodontique. En un mot, si on prend les radiographies nécessaires, si l'on évite tout traumatisme de quelque nature qu'il soit, si l'on sait où l'on va, sans prendre de risque inutile, les chances de succès de l'intervention sont favorables et devraient se produire comme telles. En agissant avec prudence et avec un usage raisonné de toutes les données en orthodontie, on obtiendra sûrement les résultats favorables que l'on connaît.

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Medical Arts Building, Suite-614, Montréal.

"HEROISM"

It takes great strength to train
To modern service your ancestral brain;
To lift the weight of unnumbered years
Of dead men's habits, methods and ideas;
To hold that back with one hand, and support
With the other the weak steps of a new thought.

It takes great strength to bring your life up square
With your accepted thought, and hold it there;
Resisting the inertia that drags back
From new attempts to the old habit's track.
It is so easy to drift back, to sink;
So hard to live abreast of what you think!

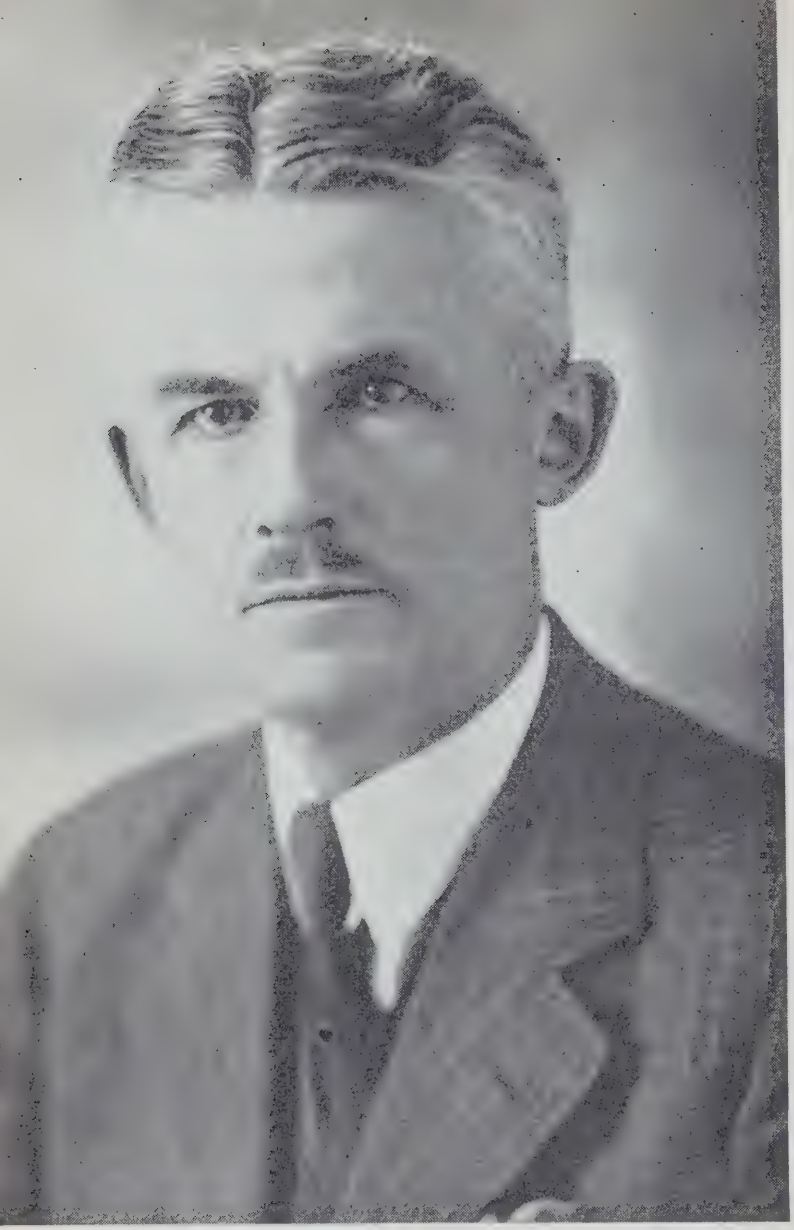
It takes great strength to live where you belong
When other people think that you are wrong;
People you love, and who love you, and whose
Approval is a pleasure you would choose.
To bear this pressure and succeed at length
In living your belief—well, it takes strength.

And courage, too. But what does courage mean
Save strength to help you face a pain foreseen?
Courage to undertake this lifelong strain
Of setting yours against your grandsire's brain;
Dangerous risk of walking lone and free
Out of the easy paths that used to be,
And the fierce pain of hurting those we love
When love meets truth, and truth must ride above.

But the best courage man has ever shown
Is daring to cut loose and think alone.
Dark as the unlit chambers of clear space,
Where light shines back from no reflecting face.
Our sun's wide glare, our heaven's shining blue,
We owe to fog and dust they fumble through;
And our rich wisdom that we treasure so
Shines from the thousand things that we don't know.
But to think new—it takes a courage grim
As led Columbus over the world's rim.
To think it cost some courage, and to go—
Try it. It taxes every power you know.

It takes great love to stir a human heart
To love beyond the others and apart.
A love that is not shallow, is not small,
Is not for one, or two, but for them all.
Love that can wound love, for its higher need;
Love that can leave love though the heart may bleed;
Love that can lose love, family and friend;
Yet steadfastly live, loving, to the end.
A love that asks no answer, that can live,
Moved by one burning, deathless force—to give.
Love, strength and courage; courage, strength and love,
The heroes of all time are built thereof.

From: IN THIS OUR WORLD,
By: Charlotte Perkins Stetson.



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The Journal
OF THE CANADIAN DENTAL ASSOCIATION

VOL. 6 TORONTO, AUGUST, 1940 NO. 8

*Presidential Address**

by LIEUT.-COL. STEPHEN A. MOORE, D.D.S., London, Ontario

IT IS with feelings of anxiety and deep concern that I address you today, realizing some of the responsibilities and problems which are facing and will continue to present themselves to the profession of dentistry in Canada. The world is in a chaotic condition and the democratic nations are fighting for their very existence. It is possible that this condition would not exist today if there had been a proper organization and understanding between the democratic powers, with an adequate plan of preparedness. It is a human characteristic to look to the future hoping for the best, even when we know from past experience that procrastination brings the direst results. Organization on a sound and proper basis, with a definite plan prepared to meet all emergencies, should be the program of the profession of dentistry. For this plan to succeed, action must not be delayed.

The problems and activities of the Canadian Dental Association are not as familiar to the members of the dental profession as they might be. This is due to different reasons but one of the most important is the fact that the national organization does not have a scientific convention but meets every second year in a business session, generally previous to the time and at the place of a convention under the auspices of a sectional or provincial association, and it is seldom that your Officers have the opportunity of meeting with you and presenting the problems of the Association as on this occasion.

The Officers of the Association must also accept some responsibility for the lack of knowledge regarding the Canadian Dental Association. We try to conduct our activities and business in a quiet and unpretentious manner. However, it is the duty of every delegate to make a complete and full report to his respective province and each province should see that this report receives the indicated publicity.

The members of the dental profession may become familiar with many of our activities by reading the official Journal. We are all desirous of increasing our professional skill and knowledge and are particularly attracted to the scientific material appearing in our publication. Unfortunately, we have a tendency to ignore those articles referring to the subjects dealing with fundamental questions. Some fifty years ago, Henry George stated, "The average voter has prejudices, party

* Presented on the occasion of the Canadian Dental Association luncheon held in the Royal York Hotel, Toronto, May 28, 1940.

feelings, general notions of a certain kind, but he gives to the fundamental questions of government not much more thought than a street-car horse gives to the profit of the line." This statement might be paraphrased and would be a fairly accurate description of our relations to the fundamental problems connected with organized dentistry.

For the past two years, your President has been closely in touch with the different activities of our organization and it would seem to be one of his duties to report briefly some of these activities and submit any suggestions which he thinks might be constructive and contribute to the efficiency of the Canadian Dental Association.

Need for National Association

For any organization to exist, there must be a need and, in addition to this, the accomplishments of the organization should justify its existence. At no time in the history of dentistry in Canada has there been a greater need for a national organization than at the present time. It is the only organization which can properly and with authority represent the profession of dentistry in any negotiations with the Federal Government or direct any projects of a national character. Many of our Committees, such as the Committee on Legislation, the Public Relations Committee, the Canadian Dental Corps Committee and the Committee on Indian Affairs, are continually in communication with different departments of the Federal Government.

Our Association is a member of the Federation Dentaire Internationale and is in close and friendly relations with other national and dominion organizations. It is a recognized fact that all communications with various national associations relating to the profession of dentistry in Canada should be carried on through the national organization.

Public Relations Committee

One of the greatest problems facing our profession is the re-establishment of the military dentist in private practice after hostilities have ceased. In this same connection is the question of dental services for the members of the Defence Forces after discharge. The Public Relations Committee is studying this problem but the best solution will be obtained only with the advice and assistance of the different provincial and local societies, as well as the full support of the profession as a whole.

We may well be proud of the accomplishments of our Public Relations Committee, under the chairmanship of Dr. J. S. Lapp. It has been extremely active and energetic. This Committee made the arrangements connected with the different luncheons held throughout Canada celebrating the Centenary of Dentistry. The luncheon held yesterday, which was so successful, was arranged by a Committee appointed by the Ontario Dental Association working in conjunction with the Public Relations Committee. Dr. Lapp and his Committee were of great assistance to me in the preparation of the address which was presented to His Majesty last May on the occasion of the visit of Their Majesties to Canada, a gracious acknowledgement of which was received from Buckingham Palace.

Legislative Committee

During the past term of office, the Legislative Committee has had different problems but one of the most important was the question of mail order dentures. Dr. Veitch and Dr. Conboy made representations at Ottawa on behalf of the Canadian Dental Association and we hope that the matter will be brought to a successful conclusion. It has been our experience that the Government is always willing and even anxious to assist in any problem which will promote the interests

of dental and oral health and Canadian dentistry. Handicapped by many difficulties, Dr. J. S. Bagnall has acted as Chairman and directed the activities of this Committee. It is to be hoped that these difficulties will be removed in the near future.

Committee on Indian Affairs

The activities of the Committee on Indian Affairs have been limited, due to the fact that the question of increased financial support to this department is not looked upon with favour by the Government during the present national emergency. However, Dr. MacDonald, Chairman of this Committee, is obtaining all the information possible on this subject, as well as information relative to dental services in the different penal institutions throughout Canada.

Canadian Dental Corps

For many years, our Association has had a Dental Corps Committee but for the past two years this Committee has been very active and it is due to the efforts of this Committee that a complete reorganization of the dental services for the Defence Forces of Canada has occurred. This reorganization was based on reports submitted to the Department of National Defence by the Committee on behalf of the Canadian Dental Association. These reports were prepared by Dr. Frank M. Lott, submitted to the Committee for approval, and finally endorsed. Dr. Lott did an immense amount of work in connection with these reports. They were most comprehensive and covered all questions dealing with dental services in military forces. Your President was particularly interested in this Committee and knows the immense amount of work done. Some members did more than others but each gladly and willingly did the duty assigned to him. Dr. Hamilton, Chairman of this Committee, conducted the negotiations in a most capable manner and to him must be given a considerable amount of the credit for the successful results obtained.

It must have been with a feeling of satisfaction that the profession of dentistry in Canada learned of the appointment of Dr. Lott as Director of Dental Services. Dr. Lott was the unanimous choice of the Board of Delegates and on instructions from the Board and after securing permission from him, your President submitted his name to the Department of National Defence as the recommendation of the Canadian Dental Association for the position which he now occupies. The profession of dentistry in Canada is proud of the officers and members of the Dental Corps. The officers are men of high professional ability and have, without thought of personal sacrifice, enlisted to serve their country in this national emergency. We must not forget either the assistance we have received from the dental supply houses and dental laboratories. Both have willingly permitted members of their different staffs to enlist in the Dental Corps, holding their positions until their return after the war. To them we are indeed grateful.

It is impossible for us to realize the onerous duties and the apparently insurmountable difficulties connected with the position accepted by Col. Lott. Gradually they have been overcome and at the present time Canada has a Dental Corps second to none. Your choice as made by the Board of Delegates has indeed been justified.

Journal of the C.D.A.

It is not my intention to discuss the accomplishments of all Committees but I would like to make some remarks regarding the Journal and the Journal Committee. It is fitting, proper and necessary that a profession have a publication owned by its members. Many of our problems and difficulties arise from ignorance and misinformation and for a suc-

cessful organization we must have an informed and united membership. The Journal is of invaluable assistance in obtaining a membership of this nature. In celebrating the Centenary of Dentistry this year, we have been made conscious of the great progress achieved by our profession but this result would not have been achieved if the pioneers of dentistry had not built into the foundation of our profession a proper organization, official dental publications and a program of education and research.

In May, 1934, the Journal Committee was instructed by the Board of Delegates to proceed with the publication of the Journal, starting with the first number in January, 1935. This plan was carried out and since that time all members of the staff have been working on a voluntary basis. All services have been given freely, willingly and cheerfully but as members of a profession we cannot expect this condition to continue indefinitely. If a thing is of value, it should be paid for and if it is of no value, it should be discontinued. At the present time, the Journal Committee receives from the Canadian Dental Association *twenty-five cents* per member per year as a subscription fee. This means that the Committee receives slightly over *one thousand dollars* per year from the Association. This does not pay the expenses involved in the publication of one issue. The other receipts are obtained from advertising contracts. We are grateful to all our advertisers and particularly to the dental supply houses and manufacturers for their loyal support. If this support were not forthcoming, it would be impossible to publish the Journal under the present arrangements and if additional financial support is not given by the profession, it will be impossible to continue publication. This would be a disaster of major importance to the profession of dentistry in Canada, a situation we trust will never occur.

Public Dental Health

In 1938, in the report submitted by the Chairman of the Public Dental Health Committee, Dr. H. S. Thomson, he suggested that the Canadian Dental Association give some thought to the problem of public dental health. The same year, your President arranged with the publishers of the Canadian Home Journal whereby they agreed to print a feature article on dental health. A suitable article was prepared by Dr. Thomson and duly appeared. It met with great approval. However, it is impossible for the Canadian Dental Association, with the present financial support, to arrange any plan of health education, a statement which is made with regret.

Research

We are handicapped in the same way in the matter of research. Dr. A. J. McDonagh, Chairman of this Committee, has selected a most capable group but their efforts are limited and on account of the lack of funds no definite plan over a period of time can be adopted. Great credit is due Dr. McDonagh and his Committee for the manner in which they are carrying on under most adverse circumstances, which we hope will soon cease to exist.

Financial Problems

For some time, your Officers have realized that the fees received from the different provinces are not sufficient to support the Canadian Dental Association in an adequate manner. At the present time, the Association receives from the legal bodies in the different provinces the sum of *one dollar* per member per year, which makes a total of approximately *four thousand dollars* per annum. Of this amount, the Journal Committee receives slightly over one thousand dollars and the expenses incurred for a meeting of the Board of Delegates is approximately the same. The Officers and Delegates are

only paid a portion of their expenses, so that it involves a financial sacrifice as well as a loss of time to attend a meeting. Each Committee receives a small grant for out of pocket expenses and the balance remaining is barely sufficient to cover the expenses directly pertaining to the executive activities of the Association.

In order that the whole situation might be thoroughly investigated, the Board of Delegates instructed the President to appoint a Committee from Ontario authorized to go into all matters pertaining to the Canadian Dental Association, with the thought in mind that a report be submitted outlining a plan of activity for the Association based on adequate financial support. Dr. Harvey Reid was appointed to this Committee by the Royal College of Dental Surgeons and your President appointed Drs. Fisk, Paul, Bothwell, Veitch, Grieve and Williams. Subsequently Dr. Williams was elected Chairman of this Committee. Up to the time of writing, no report has been received but it is hoped that one will be presented at the coming meeting of the Board of Delegates. I would respectfully suggest that this report receive your close attention, as the recommendations contained therein will have an important bearing on the future of the profession of dentistry in Canada.

There is no doubt that Canada looks to Ontario for leadership. As this is true in other activities, it is true in the profession of dentistry. Some provinces have passed resolutions favouring increased financial support to the Canadian Dental Association, to the extent of four and five dollars, if other provinces do likewise. With financial support of this nature, the national Association could function in a proper manner, efficiently looking after the interests of the public and the profession. A full-time Secretary might be secured and definite plans for public dental education and research could be undertaken. It is a surprising fact that at the present time in Canada the profession of dentistry has no officer who devotes his full time to attending to and looking after the interests of our profession. It is not the practice of the Province of Ontario to avoid responsibilities but rather to assume leadership, nor is it the habit of the profession of dentistry in this Province to evade its duties. A situation exists which may be corrected by the dentists of this Province taking the leadership and increasing their financial support to the national Association. There is no doubt that an action of this nature on our part would receive the approval of other provinces and result in their doing likewise.

Increased financial support to the Canadian Dental Association would necessitate an increased registration fee to the Royal College of Dental Surgeons in Ontario but this increased fee would be more than justified by the results obtained. In addition to this, we would have that feeling of satisfaction and well-being, knowing that we were adequately supporting the profession to which we belong. The average dentist is a reasonable individual. We would not expect a contractor, possessing a complete knowledge of his craft and the necessary tools, to build a house without materials, nor would we expect a dentist, highly qualified and established in a most complete office, to render efficient health service without the necessary supplies. It is just as unreasonable for us to expect the Canadian Dental Association to look after the interests of our profession without proper financial support, although our Association may have the finest Constitution and By-laws and be so organized as to represent all members of the profession. It would be impossible for your Association to function as efficiently as it does if some of the Officers did not assume certain financial obligations which are rightfully the responsibilities of the members of the Association.

Our representatives on the legal bodies in the different provinces throughout Canada are desirous of carrying out the wishes of the members of the profession. It is our duty to advise our representative as to the action we wish taken and in this way the opinion of the profession will be obtained. We in Ontario are represented by members of the profession elected to the Royal College of Dental Surgeons from different districts and, to intelligently carry out our wishes, the representatives must be cognizant of same. Your decision may be to discontinue the Canadian Dental Association, or it may be to support it adequately, but in either case the Officers of the Canadian Dental Association must abide by your decision.

A century ago, we transformed a craft into a profession but if we had remained a craft, we would be contributing more to the maintenance of the craft than we are at the present time to our professional activities. As dentists we have responsibilities to our profession. The knowledge we receive and the privileges we enjoy are the results of the efforts of those who have gone before. Some of us may not have the opportunity or the ability to contribute as much to our profession as others but our desire should be as great. We can, however, all assist our profession by supporting its activities in an adequate manner. On this occasion, the dentists in Ontario should not hesitate to take the leadership. This opportunity might be interpreted as a challenge to this profession and as a Past President of the Provincial Association, I trust this challenge will be accepted.

It is with feelings of relief, as well as regret, that I come to the end of my term of office. I appreciate deeply and sincerely the high honour you conferred upon me and have endeavoured to carry out the duties of the office efficiently. In the past two years, I have travelled from Halifax to Vancouver, as well as north and south, on the business of our Association. At times the duties have been arduous but memories of the kindly and gracious manner in which I have been received on all occasions and the valued friendships I have formed will always be very dear to me.

On behalf of the Canadian Dental Association, I wish to express to the President and Officers of the Ontario Dental Association our sincere thanks for their placing the program of this luncheon at our disposal. This kindly act can only be interpreted as a further evidence of the close co-operation between the two organizations.

A president can accomplish very little without the assistance of his officers. If our Association has made progress during my term of office, it is largely due to the loyal support received from my staff and associates. To them and all members of the Association I express my sincere thanks and for my successor in office bespeak the same loyalty and support.

Conventions

American Academy of Periodontology, Cleveland, Sept. 5-7.

American Dental Association, Cleveland, Sept. 9-13.

Association of American Women Dentists, Cleveland, Sept. 9-13.

American Dental Assistants Assoc., Cleveland, Sept. 9-12.

Eastern Ontario Dental Assoc., Ottawa, October 14-15.

Sulfanilamide

*A Review of the Clinical and Experimental Work on its Therapeutic Properties**

by G. ALEX. GEMEROY, D.D.S., Edmonton, Alberta

NO DRUG has been placed before the medical and dental professions in years, which has attracted so much attention as sulfanilamide. The apparent efficiency of this drug in certain types of infection, has led to its rapid adoption and experimental use in a great variety of conditions, although as yet little is known of its toxic properties and therapeutic limitations. It is the purpose of this paper to summarize the available clinical and experimental data on the therapeutic use of sulfanilamide.

Pharmacologic Action

The mode of action of sufanilamide is still not clear. In the original experiments of Domagk a virulent strain of hemolytic streptococcus derived from a human subject was employed. Control mice when injected with 0.3 c.c. of a diluted culture usually died within 24 hours. When the infected animals were injected with from 1/10 to 1/50 of the tolerated dose of sulfanilamide, curative effects were noted and if the injections were continued for three to five days the majority of the animals recovered. Human defibrinated blood infected with streptococci to which sulfanilamide 1:13,000 and 1:18,000 had been added were free from streptococci in two days; whereas in control blood a distinct increase in the number of organisms occurred in ten to twenty-four hours.

Bliss and Long reported that sulfanilamide inhibited the growth of susceptible organisms and brought about a change in the streptococci which permitted them to be phagocytized by the white blood cells. Where sulfanilamide is used they believe that bacteriostasis plays an important role in the control of streptococci infection and in a reduction in the rate of cell division of the organism, permitting the bactericidal properties of human serum to take effect and phagocytosis to destroy the organisms. The effective concentration of sulfanilamide against hemolytic streptococci in serum would seem to be about 1:100,000 or about 1/10 the concentration usually maintained. The action of sulfanilamide seems to be independent of the leukocytes in that it does not produce an increase in the total leukocytes or in the proportion of the polymorphonuclear cells. It seems likely that sulfanilamide acts primarily as a detoxifying agent, permitting the normal defense mechanisms to act on the infecting organisms. Evidence indicates that at least one action of sulfanilamide, and possibly the only one of importance, is to render serum, spinal fluid, urine and other tissue fluids unfavourable as media for supporting the active multiplication of susceptible bacteria. In consequence tissue invasion by these organisms may be prevented, production of toxic substances reduced and the anti-bacterial mechanisms of the host are permitted to complete the recovery from infection.

The drug is almost wholly excreted in the urine and this is rapidly accomplished by the normal kidney. In patients with a decreased renal function a diminished ability to excrete sulfanilamide is found

* Presented at the Refresher Course of the Dental School of the University of Alberta, February, 1940.

and a continued ingestion of the drug in these cases results in an accumulation of this chemical in the body. It has also been noted that the drug rapidly passes over into all body fluids including saliva in approximately the same concentration as was found in the blood. After a single oral dose in human beings the drug is absorbed in about four hours and a maximum concentration is reached in the blood stream within four to six hours. These observations have been of great importance in establishing a rational basis for therapy in human beings.

Therapeutic Effects

Sulfanilamide has been used primarily in infections due to beta-hemolytic streptococci especially in the treatment of puerperal fever, erysipelas, hemolytic streptococcus septicemia, streptococcus sore throat and surgical infections with the hemolytic streptococcus, and in the prevention or treatment of complications of these diseases notably streptococci meningitis, peritonitis and suppurative arthritis. Recent studies indicate that this drug is useful in the treatment of gonococcic infections. In some cases the results have been most striking while in others the drug has not proved especially efficacious. In this connection it is well to note that the reactions following the administration of the drug are occasionally of a serious nature.

In addition to the foregoing diseases, reports of the successful use of sulfanilamide have appeared in the treatment of the following diseases from which beta-hemolytic streptococci were isolated: mastoiditis, inflammation of the inner ear, sinusitis, brain abscess and scarlet fever.

Sulfanilamide has not received very extensive use in the treatment of dental or oral infections. Reports on its successful use in cases of post extraction infection associated with streptococcus viridans and staphylococcus aureus have been published. It has been suggested that its use might be of value in the treatment of pyorrhea, Vincent's infection, streptococcal stomatitis and allied diseases. It has been used locally in the treatment of dry sockets, infected extraction wounds and fractures of the jaw. A 2½ grain tablet of sulfanilamide is placed in the wound with prompt healing of lesion and cessation of the usual pains. A dentist of Carbondale, Pennsylvania, reports the use of sulfanilamide in 475 extraction cases where the drug was placed in the sockets following extraction. He states that in every instance where the drug was used there was not one case of post operative complications. The cases included cellulitis, abscesses, osteomyelitis, impactions and all the other various types of conditions found in the general run of extractions. It is now routine practice in many offices to place sulfanilamide in the socket of all extracted teeth as a preventive of dry socket or other complications caused by pathogenic organisms. Where infection is present the results obtained from the local use of the material are but little short of miraculous.

Dr. Fred R. Adams of New York City has been using sulfanilamide in root canal therapy with unusual success. He believes that some form of streptococcus is usually the predominating organism present in periapical infection and as sulfanilamide has appeared to be particularly effective in the treatment of diseases of streptococcal origin, it has appeared reasonable to hope that it might prove to be effective in the treatment of this type of infection, provided a satisfactory method of application could be found. The problem of finding an effective method presented difficulties which were chiefly mechanical. It was his belief that it was necessary to have the drug come in contact with every portion of the infected area. This is comparatively easy with a volatile agent such as one of the chlorine

preparations or formaldehyde. It is not so easy, though, to carry sulfanilamide into every portion of an infected area including the pulp canal, because the powder would be difficult to place and the material is of such low solubility in cold or warm water (not over one half of one per cent) that a solution would not be of sufficient strength to be of any use. It is soluble in acetone but it would not be practical to flood the area with this. It might be possible to use a paste of sulfanilamide and one of the animal oils and this was considered. A combination of sulfanilamide, cod liver oil, vitamin B complex and lanolin which is used for surgical dressings was proposed and an attempt was made to carry this paste through the fistula into the infected area with a jiffy tube. However this technique presented some difficulty and it is doubtful if every portion of the area could be reached.

When it was discovered that sulfanilamide is very soluble in hot water the problem was simplified. It then became a fairly simple operation to carry a hypodermic needle into the pulp canal and to irrigate the whole area with the hot solution. This is further simplified when a fistula is present. The hot solution is injected into the canal and flows out through the fistula. The operator's finger is placed over the opening in the gum and pressure is kept upon the plunger of the syringe for a few seconds, the finger holding the solution back so that it is forced into contact with every surface of the area. The dam must be applied as it should be in all root canal operations. The syringe should first be heated by drawing boiling water into it until it reaches a temperature as hot as the operator can hold in his hand. If the hand is particularly sensitive to heat a rubber glove may be worn. The solution should be boiling when it is drawn into the heated syringe and when it emerges from the fistula it will be hot enough to cause the patient discomfort and even mild burns could be produced except for the fact that the assistant will keep a stream of cold water flowing over the opening of the fistula. The sulfanilamide will be precipitated and the whole area will become covered with the crystals of the drug as the solution cools to body temperature. If no fistula is present one should be surgically established.

Sodium sulfanilamide (a derivative of sulfanilamide) is quite soluble in cold or warm water but Dr. Adams believes that

better results will be obtained from the use of the hot solution with the resultant precipitation of sulfanilamide when it cools than could be obtained from the cold solution which would simply wash out the area, leaving little if any of the drug deposited. The topical use of the drug is without any toxic manifestations and it may be used with perfect safety in the manner described.

Some of the success of this treatment is probably due to the use of heat because heat is of great benefit in the treatment of all infections. The blood vessels are dilated, an increased flow of blood is thereby induced which results in an invasion of leukocytes with the resultant destruction of the invading bacteria.

There should be no attempt to use a saturated solution of the drug in the boiling water because the needle would become clogged with crystals as the solution cooled. One grain to each c.c. of distilled water is about the correct percentage to use, although a slightly larger amount may be used after one becomes familiar with the technique.

Dr. Adams reports that in his use of this method he had a dry canal and a negative culture after one treatment in every case treated exclusively with sulfanilamide with the exception of one case which required three treatments before getting a negative culture. Most of the cases were given additional treatments after asepsis was established for extra safety. These were not selected cases but included every case treated by this method during the period covered by his report. Some cases were of long standing and with pus present. Some of the teeth would have been extracted in all probability except for the desire to make this investigation.

It is the belief of Dr. Adams that the use of this drug will prove to be a valuable addition to our methods of root canal treatment, and it is hoped that further investigation will prove this to be correct. He is most positive that the results obtained could not have been possible with any other form of treatment. Even though the dentist believes in root resection in all cases of this type, the treatment should be worth a great deal if it enables him to obtain sterility before filling the canal and before operation.

Many theories have been advanced regarding the reason for the specific action of sulfanilamide but none has been generally accepted. It has a selective action on certain bacteria but we do not know just what this action is. It is not germicidal in the ordinary acceptance of the term but it destroys bacteria in some manner. No theories regarding the results obtained from local use have been advanced. It is only very recently that the medical profession would admit that it could have any local action of any kind.

This method of treatment is not presented as an easy way to handle infected root canal cases. Careless and unscientific methods will not get results. There is no operation in dentistry that requires more exacting attention to detail than root canal therapy. An exact, careful and scientifically correct technique must be followed, and if this is done it is believed that satisfactory results will be obtained. Use stainless steel needles and a syringe of the Luer type.

Method of General Administration

It is evident that administration of sulfanilamide by mouth is the method of choice. In cases of serious infection the dose is 15 grains every four hours for forty-eight hours and then 7½ grains every four hours thereafter. It is usually advisable to continue therapy for a few days after clinical recovery in order to avoid relapse; and in cases of gonorrhea for a minimum of two weeks. Infants will tolerate from one-third to one-half the adult dose and children from one-half

to three-fourths the adult dose. Patients who cannot take the drug by mouth may be given subcutaneous injections of an 0.8 per cent solution of sulfanilamide made by adding 8 Gm. of pure sulfanilamide crystals to a liter of warm physiologic solution of sodium chloride. The same total dosage may be employed as for oral administration but the injection should be given at six to eight hour intervals. In less serious infections where no threat to life exists a lower dosage of from 45 to 60 grains a day is recommended without the larger initial doses.

In serious illnesses as hemolytic streptococcal meningitis, peritonitis and septicemia an attempt is made to control the infection as soon as possible by the administration of a large initial dose. Long and Bliss have administered an initial dose of from ten to sixteen 5 grain tablets to adults and follow this with three 5 grain tablets every four hours to maintain the sulfanilamide level in the blood.

Toxicity

No patient should be treated with sulfanilamide unless arrangements are made for daily attention by a physician. This is because of the possibility of serious toxic effects, which while not frequent, are somewhat unpredictable in their occurrence and presumably have as their basis a peculiar idiosyncrasy of the patient. Many patients receiving sulfanilamide will show some degree of development of a slate grey type of cyanosis first apparent in the lips and nail beds, but later suffusing the entire body. The exact nature of this cyanosis is not known but it is not, in the opinion of most observers, a serious complication and its development in a patient with a serious infection is not an imperative indication of cessation of therapy. The dangerous complications of sulfanilamide therapy are hemolytic anemia, jaundice and agranulocytosis and sometimes these reactions occur after relatively low dosage. Frequent estimation of red and white blood cells and hemoglobin is essential for safe use of the drug for if these complications are recognized early the use of transfusions and stopping the drug will usually result in prompt improvement. The drug produces fever with or without cutaneous rashes in certain individuals, but such a drug fever does not develop until after several days of therapy. It has been claimed that sulfanilamide induces acidosis and because of this the simultaneous use of sodium bicarbonate has been recommended. Magnesium sulphate (epsom salts) should be avoided in patients receiving sulfanilamide and it should not be prescribed concurrently with other drugs without full knowledge of possible ill effects.

In patients suffering from acute toxic manifestations of this drug large amounts of fluid by mouth act as an antidote by providing more rapid elimination through the kidneys.

Summary

Sulfanilamide and its derivatives are powerful chemotherapeutic agents in the treatment of certain infections: notably those associated with beta-hemolytic streptococcus. The pharmacology and mechanism of its action are imperfectly understood. Sulfanilamide has certain toxic effects particularly on the blood system, the most serious of which is the occasional development of fatal agranulocytosis. This necessitates careful periodic examination of the blood in order to avoid overdosage. Oral administration is the method of choice. The dose should be reduced when clinical improvement is evident. Its use in dental infections or acute and chronic infections of the jaws has been limited and no conclusive report is yet warranted, but it is becoming increasingly apparent that it is a definite aid in controlling and removing serious streptococcus invasion of the oral cavity.

A Dental Officer's Venture in Orthopedic Prosthesis

by R. S. ROSE, Eston, Saskatchewan

NOW that we are in the midst of another war, I have noted with interest, in the Journal, accounts of incidents that occurred in the C.A.D.C. in the last one.

Many dental officers who had the privilege of serving overseas, can no doubt recall unusual cases that presented themselves, and some instances where the treatment rendered was unlikely to be associated with the regular duty of a dental officer.

In 1917 and the first months of 1918, I was stationed at Bramshott camp in England, and was attached to The Boy's Battalion for quarters and messing.

At that time all the officers of this battalion were veterans of the front line, and nearly all carried from one to five wound stripes on their tunic sleeves. The Second in Command, Major X, had been invalided to England sometime previously on account of the loss, from a gunshot wound, of one of his toes. The missing member was the second toe on the right foot. This caused the Major to walk with a limp due to the great toe falling inward toward the third to such an extent that very little muscular effort could be maintained in the great toe, when walking.

In conversation with Major X one evening, as we were retiring, he mentioned the wound and showed me his foot. He said he felt sure that if something could be devised to fill the space left by the missing toe, he would be able to walk in comfort and without limping. He was very anxious to return to his battalion in France, but no medical board would pass him on account of his limp.

Turning the matter over in my mind, I felt sure that I could make some sort of appliance that would serve the purpose. Consequently I asked the Major to come to the clinic next day. This he did, and I then proceeded to mix a large bowl of impression plaster which I spread evenly to a thickness of about one inch in the lid of a shoe box. I then placed the foot in the soft plaster until the plaster came up about the foot and toes to about half their thickness, holding the great toe in its normal position until the plaster had set. The foot was then removed and the surface of the plaster soaped and the foot replaced in the impression. Another large mix of plaster was then made and poured over the toes, and after setting, the halves were separated and the foot removed. The halves were then put together and a model poured. From this a wax model of the proposed spacer was constructed, invested in a vulcanite flask and a velum rubber facsimile made. This rubber spacer was then bored full of holes with a number 10 round bur.

The next day I called the Major in and placed the rubber spacer in position sprinkled well with talcum powder. I shall never forget the look on his face as he replaced his sock and field boot and took a turn or two about the room without a sign of a limp, and as he turned to leave I asked him where he was going and he told me that he was on his way to find the nearest medical board.

Major X returned to France very shortly after that.

Some years later he told me that the original rubber toe had served very well, but had in time gotten somewhat rough from deterioration of the rubber, but that he had had another one made exactly the same which he was then wearing.

The Forum

• WHY PATIENTS DESERT US

by J. MENZIES CAMPBELL
F.R.S.E., D.D.S. (Univ. Toronto), L.D.S. (Glasgow), L.D.S. (Ontario)

EVER since I started practice, twenty-six years ago, I have carefully recorded reasons, collected from many sources, as to why patients desert their dentists — a question, very naturally, at times, perplexing to all of us. I regret to state that one of the most prevalent causes is a fellow-practitioner meeting another's patient socially, and undermining confidence. Maybe he succeeds in his acquisitive purpose: not infrequently, however, the patient apologetically returns later to his former dentist, acquainting him fully of the incident, or other members of the connection, who have remained loyal, volunteer the information. In my opinion, such conduct is just as infamous as certain of the misdemeanours for which dentists are liable to be either reprimanded by the Dental Board or have their names erased from the Dentists Register.

Here is a selection of other reasons. Smoking between appointments. Offensive breath, digestive or alcoholic. Dirty fingers, often tobacco-stained, with nails "in mourning." Neglected teeth. Wearing inartistic artificial dentures. Unshaved. Lack of punctuality. Discourtesy. Losing one's temper. Brusque manner creating nervousness. Impatience with, or unfriendliness towards, children. Obsession to extract teeth. Stating that "decay is too small, return in six months" (cavities, unlike game, do not improve with keeping!). Untidy or dirty rooms. Disinclination to fill primary teeth. Regularly posing as being so busy (recollect, only liars have no quiet hours!). Carelessness in sterilizing instruments. Bloodstains, or extracted teeth lying around. Creating impression of jealousy towards another (more successful) practitioner. Unsympathetic. Turning the Nelsonic eye to the correct number of fillings required (*e.g.,* stating three instead of six), thus hoping favourably to impress a new patient. Ascertaining the name of a patient's previous dentist, and then saying, *e.g.,* "Did ——— fill those teeth? That's not up to his usual standard." Ill-timed humour, particularly the vulgar type (the reaction of cultured persons is annoyance and a lack of confidence). Too frequent interruptions. Constructing ugly temporary dentures like jumping postillions, or causing the wearer to resemble a bronco, misguidedly believing that such fixtures will not be worn too long (patient, however, argues, "If this is the best *he* can do, I'll try someone else for the permanent dentures"). Journals of a *double entendre* nature in the reception room. Too gentle, too rough, or too cold-blooded. Soiled jacket, collar, cuffs, or covers on head or arm-rests of chair. Displaying annoyance, *e.g.,* looking out of window and humming as patient explains difficulty in wearing new dentures. Constant odour of cooking. Neglecting to let patient see either you or your assistant giving him a clean tumbler. Ardently discussing personal affairs, Stock Exchange, politics, or economics. Failing to wash the hands in the patient's presence before starting treatment, or *e.g.,* on returning from the telephone. Losing one's nerve in a difficulty. Inadequately protecting a patient's clothes throughout prophylaxis. Unable to be located by a patient who is bleeding profusely. — *Dental Magazine and Oral Topics, March 1939.*

• THE NUTRITION REQUIRED FOR IMPROVING THE NEXT GENERATION

by WESTON A PRICE, D.D.S., M.S., F.A.C.D., Cleveland, Ohio.

(Summary of lecture delivered at the Mid-Continent Dental Congress, St. Louis, Mo., October 23, 1939)

THIS subject implies that a physical degeneration has been going on in the modernized white race. That this is true is abundantly established by the prevalence of many of our modern degenerative diseases and physical defects. The cause of dental caries is now clearly shown to be a matter of faulty nutrition prior to and at the time the caries is active. This disease and many others which are directly attributable to faulty nutrition can now readily be controlled.

In this discussion I will speak chiefly of disturbances in physical development. Before doing so, however, it is important that I state how tooth decay can be prevented. In the light of our present knowledge caries is due to the absence of an adequate quantity of minerals and vitamins in the individual's body which should have been supplied by the daily intake of food.

Very important light is thrown on this whole problem by my extensive studies made among fourteen primitive races in different parts of the world. In the groups where they were still isolated and living on native foods selected in accordance with their acquired wisdom, the general average number of teeth affected by tooth decay was approximately one tooth per hundred. After the members of the tribes had had contact with modern civilization and had changed from their native foods to the foods of modern commerce, the average incidence of tooth decay increased to over thirty teeth per hundred. That this was entirely due to the nutrition was abundantly demonstrated by the fact that when these affected individuals returned to their isolated localities and to their native foods, tooth decay ceased to be active.

A chemical analysis of the selected native foods, though differing widely for different parts of the world, averaged from three to five times as high in body building minerals and vitamins as the displacing foods of modern commerce, which consisted largely of refined cereals, refined sweets, canned goods, polished rice and vegetable fats. For children one quart of high vitamin milk, freshly ground whole wheat cereals and breads, half teaspoon of cod liver oil 3 times a day, high vitamin butter and no sugar, usually is adequate.

It is important to note that the primitive people also developed, when modernized, many other expressions of modern degeneration such as disturbances of the internal organs, including appendicitis, gallstones, stomach and duodenal ulcers and a marked increase in malignancies.

While members of these primitive races often looked so much alike as to appear to be members of the same family, though not related and even living on different islands, a marked change in physical appearance and body build occurred in the next generation after the parents had adopted the imported foods of commerce. The effect of this is to cause them to lose much of their beauty and excellence of face and body form with accompanying changes in personality and character.

Many of these tribes in their isolation have had no need for police or prisons because all of the individuals were in complete accord and sympathy with the tribal laws and practices. I was advised frequently that the primitive aborigines of Australia would not steal anything because of their high sense of honour. While it is true that many tribes have learned clever tricks from the white races with whom they have come in contact, it is also true that unfavourable changes in character have developed in later generations.—*Jour. of Missouri S. Den. Assoc.*

• A NEW PLAN FOR DENTAL AND ORAL HEALTH INSURANCE DEVISED TO MEET THE EXIGENCIES OF THE LOW-WAGE-EARNING SIXTY PER CENT POPULATION

by HERMAN AUSUBEL, D.D.S., Brooklyn, N.Y.,
President, American League for Public Medicine, Dental Division.

(Condensed from the Dental Outlook, Jan., 1940)

OUR plan is only tentative and in essence is as follows:

1. Form a Dental and Oral Health Insurance Corporation which shall be a non-profit, idealistic agency, to bring dental and oral health service to all the families gainfully employed and whose earning is less than $25.00 per week.

2. A member signing up for this health service will have to pay a yearly premium of, say, $15.00, which will entitle him or her to a full series of radiograms, all amalgam and plastic fillings, cleaning of teeth, extractions, periodontic and oral surgery services, free of charge; specialists' services and consultations, whenever indicated. An additional inducement will be given to them, in that they will be able to get a substantial reduction on their prosthetic work for which they will have to pay extra. Should they want gold inlays instead of plastic fillings they will have to pay the dental laboratory bill for same. *We may establish our own prosthetic laboratories* or *arrange with reliable laboratories to give us greatly reduced rates.* Patients will be charged at cost.

3. Contracts issued to members shall be issued for a term of five years. The object being to make it profitable for dentists to treat members with many defective teeth for the low sum of $15.00 per annum. If they make little money on them the first year, it will be profitable the remaining four years. It may be necessary to get one or two co-signers on these contracts to insure the collection of the premiums for the five-year term.

4. A Mutual Liability Insurance Corporation may be formed subsequently by those members joining the group to insure themselves against possible losses that might arise due to the defalcation of some patients joining the group. The losses will thus be distributed to the entire membership.

5. Overhead expenses for the agency should be paid from a self-imposed tax of those dentists comprising the group, each one paying in proportion to the number of premiums collected. It is quite evident that as each member dentist will maintain his own office he will be able to accept only the number of patients that he will need to fill in his unoccupied time to help him support himself professionally and ethically.

6. A Checking Committee consisting of members of the executives who are directing this work *gratuitously* will have to be established to make sure that its members are doing their best to put the health of their patient members' mouths in as good condition as possible.

7. Those of the public who are not gainfully employed should have their premiums paid from public funds. A bill for that should be sponsored by organized dentistry.

8. Patients will pick their own dentists in their own neighbourhood from the panel of dentists joining the group.

This plan has the following advantages:

1. No investment of any funds is needed for its creation.

2. The method proposed will not disturb the present status of dental practice.

3. It will save our government millions of dollars which are expended in the support of municipal, state and federal clinics. *The abominable charity and philantropic aspects associated with health service will be once for all eliminated from the medical horizon.* Every one, except the unemployed, will have the

satisfaction of paying for benefits received.

4. It will give an opportunity to those unfortunates amongst us who find the labour pains of this transitional period unbearable to come out unscathed as they will be able to make an honourable living in their own profession.

5. It will give an opportunity to 60% of the low-wage earners of the nation and the unemployed to be self-reliant and to taste the blessings of modern dentistry without undergoing the humiliation of accepting charities from public or private institutions.

6. It will increase general employment and will also stimulate the production and distribution of dental supplies by at least 150%, for which reason we should obtain financial and moral encouragement from dental manufacturers, supply men and dental laboratories.

• ARE TEETH INSURABLE?

by CHARLES A. SWEET, D.D.S., Oakland, Calif.

(Conclusion of paper in Jour. of A.D.A., February, 1940.)

EQUITABLE arrangements can be concluded between parents or guardians of children and the dentist by which the latter renders services incidental to (1) prevention of caries, (2) eradication of caries and repair of the damages inflicted thereby, (3) restoration or replacement of parts of or whole teeth affected by accidents and (4) extraction and orthodontic treatment, on a basis of periodic payments, previously agreed on, provided (a) such arrangements are complete with a sufficiently large number of patients to ensure that the services rendered the whole group will conform to the predetermined work-time factor; (b) satisfactory co-operation between the patient, his family and the dentist is obtained, through which home care is maintained and visits for inspection are made as often as is required for the individual case, and (c) the operator is diligent in his efforts to prevent beginning caries and to detect and correct each attack in its earlier stages.

Among the advantages to the recipient are early assurance that the major costs of dental service will not be beyond a pre-determined amount, and the shifting of the responsibility for a clean, healthy and comparatively caries-free mouth to the person who should, but cannot ordinarily, assume the obligation.

Among the advantages to the dentist are a "levelling off" of the hills and valleys of his income, an income related to the value rather than the amount of service rendered and the satisfaction of knowing that his services are being rendered to the maximum advantage of all parties concerned.

• CALCIUM METABOLISM AND TEETH

by the late RUDOLF KRONFELD, M.D., D.D.S.

(Excerpt from Illinois Dental Journal.)

CALCIUM Therapy in Dentistry—From the foregoing it is evident that attempts to improve the structure of erupted teeth by means of calcium and phosphorus or vitamin preparations are useless. Even if the calcium were assimilated by the body there is no way in which it could be incorporated into the enamel of fully formed, erupted teeth.

The important period for the structure and composition of the enamel of the permanent teeth is from birth to the age of five or six years. Especially significant with respect to the first permanent molars are the first two years of life. During this formative period a diet well fortified in the necessary building elements is essential for strong, well-built teeth. The best natural source of calcium is milk. Vitamin D, which is necessary for the proper assimilation of calcium by the body, is found in milk, butter, egg yolk, cod liver

oil, and other fats; if necessary it can be supplemented in the form of vitamin D concentrates.

Once the teeth have erupted they have just as good or just as bad a structure as they are going to have for the rest of their life.

• DENTAL HEALTH

by HARRY M. MOSS, D.D.S.,
President of First District Dental Society of N.Y.
(Abstract of his address in N.Y. Jour. of Dent., February, 1940.)

TODAY changing social concepts must be recognized and considered. They have brought the profession to a point where only the most naive or blind cannot but see the inevitability and necessity of certain readjustments in our system of practice. Among the many manifestations of these changes may be mentioned increase in clinic facilities, dental care of children in the schools, contract practice, group practice, health centers, voluntary and compulsory insurance, cash indemnity plans, and extension of dentistry in public health service.

Though I believe that only under the system of private practice can the highest type of service be performed, the need for finding a means of helping the low income groups receive care is so acute that we cannot remain smugly satisfied with conditions as they are.

The sooner it is realized and admitted that low income groups cannot possibly finance their own health care under our present system, the sooner shall we be on our way toward an intelligent, constructive solution of the problem.

Created and developed by individuals having the social and not the professional point of view, plans thus far proposed are unsatisfactory solely because they fail to render a sufficient health service. They set up no adequate safe-guards or standards and do not supply benefits sufficient to maintain dental health. As a result of their desire to serve as many as possible, they reduce the benefits per person to a ridiculous minimum, under-compensate the operators, and worry not at all about the quality of service. The result is a vicious type of service that contributes nothing to the well-being of the individual.

The main item of cost, and the irreducible one, is the time required by the dentist at the chair. Nothing can be done to shorten the length of time needed to do a given piece of work, and until the chair-hours per person per year are reduced, the cost of dentistry cannot be materially lessened except at the expense of quality.

What, then, is the solution? It would seem to me that no plan could possibly be acceptable that did not have as its primary objective a wider distribution of service, that is, bringing dentistry within reach of a greater percentage of the population. And this could only be accomplished in one of two ways, either through decreasing the incidence of decay, thereby reducing the number of chair-hours required and thus the per capita cost of dental maintenance, or through government subsidy, or a combination of both.

The first solution I mentioned represents the considered and rapidly crystallizing opinion of the dental profession on this subject. It concedes that the rehabilitation of the present adult population would be too costly to accomplish, and we must, therefore, confine ourselves to emergency and palliative measures for this group. Federal and municipal funds now available for the indigent can take care of these two classes on this basis.

But the ultimate solution, it is felt, can only come through research, prevention, education and children's dentistry, starting with the pre-school child.

The incidence of dental defects having been greatly reduced, the cost of maintaining the dental health of this individual through adult life would be

nominal, and would not require the expenditure of large personal or governmental sums.

I believe it to be the imperative duty of the Society to attempt to develop this pre-school dental campaign, but it must be remembered that it is a long-term project.

The other course open to us requires that the government assume responsibility for the health of the people, and that dental disease being a contributing factor, dental care must be furnished by the government. Whether we are ready at this time to accept this theory, I am not prepared to say. But I feel most strongly that we must inevitably come to it because of the ever growing need and demand for dental service. If the government assumes this responsibility it must be prepared to furnish as much service as may be required to maintain health.

The dental profession would be compelled to define what constitutes minimum adequate dental service. If any criticism can be levelled at the profession, it is here. Long before this, there should have been prepared, and immediately available, the considered official opinion of organized dentistry defining minimum adequate dental service, compensation and safeguards of quality. This could then be the yard-stick or pattern and, thereafter, any plan written would have these provisions in mind and, when proposed, could be subjected to comparison with this yard-stick.

• REPORT OF THE RETIRING PRESIDENT

by CLYDE H. SCHUYLER, D.D.S.

(Condensed from The N.Y. Jour. of Dentistry, February, 1940.)

THE most serious problem confronting the profession at the present time is unquestionably that of dental service to the indigent and those in the low income groups. We are cognizant of their needs and sincerely desire to co-operate in any plan whereby adequate dental service may be made available to this group, providing it maintains reasonable professional standards. Our City Administration, except the Department of Welfare, has not seen the advisability of consulting or giving organized dentistry a voice in formulating any plan relative to the dental care of the people of New York.

Dentists are woefully underpaid, even less in most instances than members of the skilled crafts. While some members of the profession are being paid $1200.00 a year for full-time and others $1220.00 for half-time, the plumber receives the prevailing wage of $3000.00 per year. The necessity of reducing the City's budget is emphasized. However, monies to meet the prevailing salary of $3000.00 of the plumber, $2800.00 of the carpenter, $2800.00 of the electrician, or $50,000,000 for a monument to our Mayor, is readily available.

Any thought of rendering adequate dental care to all groups should begin with the children. Organized dentistry is sincerely desirous of seeing dentistry made available to every school child and the indigents, but before we can advocate the equipping and manning of this increased number of clinics, we must see that honorable consideration is given to those dentists who are at present employed by the City to render dental service in clinics conducted by the City. We fear our Mayor would be more reluctant to recognize budgetary increases necessary to rectify the "grossly inadequate" compensation of the Civil Service Dentists, if the several hundred additional dentists needed to render this more complete service, were added to the Civil Service rolls.

PRINCE EDWARD ISLAND

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C.D.A. *Delegates' Meeting*

The Delegates' Meeting of the Canadian Dental Association was held in the Royal York Hotel, Toronto, May 22-25, with all nine provinces represented. The sessions were long and trying as many important matters pertaining to the future of dental practice in Canada were under discussion.

Few men realize or could realize the tremendous amount of work which Lt.-Col. Stephen A. Moore, as President of our Association, has done for Canadian dentistry during his term of office. He represented our Association at the St. Louis meeting of the A.D.A. He attended meetings of the Eastern Ontario Dental Association, the Toronto Academy of Dentistry, the Kent County Dental Association, the Elgin County Dental Association, the Hamilton Academy of Dentistry, the Montreal Clinic Club and the Convention of French-speaking dentists, and some of these groups were visited several times. He also visited the Maritimes and has had many trips to Toronto, Ottawa and Montreal in the interests of our Association. This was done in addition to acting as Business Manager of the Journal and at great personal sacrifice of time as well as financial sacrifice.

With this splendid background Col. Moore brought to the Delegates a most comprehensive report. He emphasized the importance of doing some-

thing about the re-establishment of the military dentist returning to civil life, also about the dental treatment of the members of the Defence Forces after discharge, and the necessity of doing something about it right away. A Committee was appointed to deal with this problem.

The splendid achievements of the Dental Corps were discussed and great credit given to Col. Lott for his untiring efforts in the interests of the Corps. It was Col. Lott who as a member of the Dental Corps Committee of the Canadian Dental Association prepared the reports which were submitted to the Committee for discussion and later presented to the Department of National Defence on behalf of the Canadian Dental Association.

Considerable discussion took place re the problem of incorporating the Canadian Dental Association. It was considered most advisable and steps are to be taken to bring this about just as soon as possible.

Our Committee on Legislation had a number of problems to face, particularly the one of mail order dentures. We believe that this matter is about settled or will be in the very near future.

Reports were received also from the Secretary-Treasurer; the Journal Committee; the Editor and the Business Manager of the Journal; the Committees on American Hospital Association, Canadian Dental Corps, Constitution and By-laws, Dental Education, Dental Examination in connection with Insurance Companies, Dental Health, Ethics, Finance, Indian Problems, Legislation, Public Relations, Research, Archives, Nomenclature and Necrology. Most of these reports will appear in an early issue of the Journal.

One of the most important reports was made by the Advisory Committee appointed by the President to investigate matters pertaining to the Canadian Dental Association and to bring in recommendations for consideration by the Delegates. This Committee was composed of Dr. C. H. M. Williams (Chairman), Drs. E. C. Veitch, George Grieve, G. V. Fisk, E. W. Paul, J. A. Bothwell and Harvey Reid, who was appointed from the Board of the R.C.D.S. of Ontario. This Committee advocated a number of changes in our policy which will appear in the published report next month, but the outstanding recommendation was that the provincial licensing body in each province be asked to contribute annually to the Canadian Dental Association a four dollar membership fee for each licentiate in good standing in that province. It was agreed that effective assistance by the Canadian Dental Association to the profession throughout Canada can only be extended when the National body can afford to pay the salary and expenses of a competent full-time secretary and other officers, as well as the cost of a number of well-organized campaigns carried out in the interests of the public and the dentist.

Perhaps now, as never before, is it necessary — even urgent — that the dental profession of Canada should become efficiently organized and equipped to face the problems that the future will inevitably hold for it. In these days we have so many deplorable examples of the effects of unpreparedness in many walks of life. Thus far the dental profession of Canada is no

exception, and it behoves us to wake up and take action before it is too late. That our profession will have to face many problems of vital interest to every dentist, in the not too distant future, goes without saying, problems which can only be dealt with by a national organization, comprising all the provinces, so let us get behind every move put forward to strengthen that organization before it is too late.

For those of our readers who would know more about the work of the Canadian Dental Association and what it can do for every one of us I would urge them to read the splendid and enlightening address by Col. Moore in this issue of the Journal, an address presented at the C.D.A. luncheon held in the Royal York Hotel during the Convention of the Ontario Dental Association last May.

All the great achievements in the history of the world were the result of steadfast decision. Let the decision of the dentists of Canada be "Forward" even though these are trying times: forward to an ideal national association: and forward to the highest possible service to our Country in its time of need, being thankful that we belong to a race that does not know the meaning of surrender when a moral issue is at stake, when our liberty is being threatened, when all that we hold dear is in jeopardy. Let each one of us resolve to follow in the steps of Patrick Henry when he said: "Is life so dear or peace so sweet as to be purchased at the price of chains and slavery? Forbid it, Almighty God. I know not what course others may take, but as for me, give me liberty or give me death."

CORRESPONDENCE

To the Editor, Journal of the C.D.A.:

I am enclosing herewith an advance proof of the Editorial for the forthcoming issue of the Journal, with relation to compulsory service. From this you will see that it has been decided that from now onwards every dentist who is within the age groups liable to compulsory service in the Army, which at present is up to 34 and will shortly be up to 41, is to be liable to compulsory professional service with the Allied Forces.

The calls of the Services are becoming so heavy — quite properly of course — that it is more than ever necessary to take steps to ensure that the dentists left at home to carry on the dental work of the civilian population are properly distributed over the country.

I do not know whether it is appreciated in Canada that as we have only one dentist to something like 3,500 members of the population generally, that it is literally impossible for us to aim at so high a ratio of dentists to men in the Services as your Canadian ratio. If we attempted it the result would be that we should have very few people left at home to give the necessary dental attention to munition workers and other members of the population and we are striving as far as possible to ensure that in the midst of this effort that the teeth of the school children shall not be allowed to suffer, whatever happens to the older members of the population.

It is good to be in England when we have, in a sense, got our backs to the wall. The solid feeling of determination to see this thing through, whatever the cost may be, becomes more and more evident as the situation becomes increasingly serious. It is a source of great strength to us to feel that we have solidly behind us the whole man power and woman power of Canada and the other great Dominions over the seas.

June 10, 1940. *(Signed)* BRYAN J. WOOD.
Editor of British Dental Journal.

BOOK REVIEW

Dental Mechanics for Students, by John Osborne, L.D.S. (Birm.), Whole-time Lecturer and Demonstrator in Dental Prosthetics, University of Sheffield; Assistant Honorary Dental Surgeon, Sheffield Royal Hospital. Published by John Bale, Sons and Staples, Limited, 83-91 Great Titchfield Street, London W.1., England. Price 12/6d net.

While the subject matter is intended to meet the requirements of students beginning the study of mechanical dentistry it will no doubt attract the interest of many practitioners.

There are 99 cuts illustrating the following subjects: Impression Materials, Sand Casting, Soldering, Construction of Trays and Bite Blocks, Articulators, Denture Retention, Partial Cases, Flasking and Packing, Denture Bases, Polishing Agents, Swaged Denture Bases, Lingual and Palatal Bars, Casting Denture Bases, Repairs, Immediate Restorations, Crowns and Bridges, Porcelain and Staining, Treatment of Fractures and Cleft Palates.

The dentist who does his own mechanical work or has it done in his office under his direct supervision will no doubt find in this book many helpful suggestions.—*M. H. G.*

DENTAL CORPS NEWS

Dentists' Wives Carry on War Work

Mrs. S. W. Bradley was hostess to the members of the Ottawa Dentists' Wives' Association on June 12 at her residence. In the report on the war work it was stated that cigarettes had been sent to the Dental Corps overseas and will be sent during the summer at intervals. Boxes are also being sent to the Dental Corps at Petawawa Camp and it was decided that the Committee would carry on with war work during the summer. Knitting is to be done for the Red Cross Association as well as for refugees. Money was voted to the Red Cross Association for blankets and a donation was also voted to the Soup Kitchen.

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To Command Base

Major F. W. Saunders, D.S.O. of M.D. No. 4, Montreal, has been appointed to command the Intermediate Base overseas of the Canadian Dental Corps.—*Montreal Star.*

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Dental Auxiliary Tea

Under the auspices of the Ladies' Dental Auxiliary for M.D. No. 1 a delightful garden tea was given on June 12 at the home of Dr. and Mrs. J. Frank Giffen. Guests were received by Mrs. Clement Windsor, President of the Auxiliary. The tea was held to raise funds to provide comforts and accessories for the Dental Corps at home and overseas.

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M.D. No. 10

Captain N. S. Bailey has been appointed Command Dental Officer for No. 4 Air Training Command with the acting rank of Major. His headquarters are at Regina, Saskatchewan. The district includes Southern Saskatchewan, Alberta and most of British Columbia.

New additions to the operating staff include Drs. O. Brewer and K. I. Livingston of Winnipeg and Dr. R. S. Kinney of Bissett, Manitoba.

Captain G. W. Steele who practised at Weyburn, Saskatchewan, and who has been Adjutant of No. 12 company for some months has been appointed Command Dental Officer of No. 2 Air Training Command, with headquarters in Winnipeg.

The Officers, 1st Division Dental Company, C.A.S.F., England, 1940.

Captain D. J. Ferguson, M.D.S., D.D.S., of London, Ontario, District Dental Officer of M.D No. 1. He was graduated from the R.C.D.S. of Ontario in 1919, and practised in Western Canada until 1924 and later from 1926-1934 when he moved to London, Ontario. He was in charge of clinical exodontia at McGill University 1924-25. He took a P.G. course in Bacteriology and Pathology in the Montreal General Hospital, also a P.G. course in Orthodontia and Exodontia at Washington University, St. Louis. He obtained his M.D.S. at Toronto in 1925.

He was Secretary of the Western Canada Dental Society; President of the London Dental Society, and lectured on Stomatology to the medical students at University of Western Ontario.

He enlisted in the 70th Battery, R.C.A. in the spring of 1918 and was an officer in the 1st Hussars Cavalry Regiment when the present war was declared.

He is a Shriner, a 32° Mason, a member of the Kinsmen Club and the London Figure Skating Club.

Captain Ferguson is married and has two sons.

Major N. S. Bailey, D.D.S., of Portage la Prairie, Manitoba, now Command Dental Officer, No. 4 Training Command, R.C.A.F., with Headquarters in Regina, Saskatchewan.

He was born in Portage la Prairie in 1891 and was graduated from the R.C.D.S. of Ontario in 1914.

In 1915 he joined the C.A.D.C. and served in Canada, England, France and with the Army of Occupation in Germany. Being demobolized in 1920 he spent one and a half years in England prior to returning to private practice in Portage la Prairie.

He enlisted in the C.D.C., M.D. 10, in October, 1939, serving as Adjutant to Lt.-Col. Wright until May, 1940. He was Camp Dental Officer at Camp Shilo until he was promoted to his present position.

For ten years he has been a member of the Board of the Manitoba Dental Association and for two years, its President. He is a Mason and his hobbies are shooting and golf.

Major Bailey is married and has two daughters and one son.

Captain C. W. Steele, D.D.S., of Weyburn, Saskatchewan, now Command Dental Officer, No. 2 Training Command, R.C.A.F., with Headquarters in Winnipeg, Manitoba.

He was born in London, Ont., in 1894 and entered the R.C.D.S., Ontario, in 1915. In April 1916 he enlisted in the 67th Battery, C.F.A., and served in England and France until October 1918. In 1921 he was graduated from the R.C.D.S.

In 1934 he was commissioned in the Weyburn Regiment as Paymaster. In September 1939 he joined the C.A.S.F. as Paymaster, South Saskatchewan Regiment, when the unit was mobolized for active service. He was transferred to No. 12 Coy., C.D.C., October 1939. He was appointed Adjutant, April 1940, and received his present promotion in June.

He practised in Lethbridge, Alberta, 1921-1922, and in Weyburn, Sask., 1922-1939. He is a member of the United Church and his hobbies are gardening, hunting and curling.

Captain Steele is married and has one son.

M.D. No. 12

No. 12 Company C.D.C. is now settled in Dundurn Camp, Saskatchewan, a beautiful stretch of rolling woodland country interspersed with small lakes and lying some thirty miles south of Saskatoon. To the west is the south branch of the mighty Saskatchewan river and throughout this vast area of some twenty thousand acres are winding trails which abound in wild life and which make very interesting walks or drives during the long June evenings.

In addition to the clinic here, there are three other points that require attention when recruiting is going on and where troops are stationed. These are in Prince Albert, Saskatoon, and Regina.

The Company was organized and started operating in Regina the middle of September, 1939, under the able guidance of Lieutenant-Colonel G. L. Cameron, D.S.O. Captain, now Major A. Gregor Smith was called to act as Adjutant and when Lt.-Col. Cameron left for Ottawa, as second in Command, Major Smith was made D.D.O.

Other officers were Captain C. W. Steele, now in Winnipeg as Officer Commanding Dental Service for No. 2 Air Command, Captains T. J. S. Cooke, H. R. Kerr, I. G. MacKenzie, R. D. Reid, and Lieutenant G. A. Grass. Captains Kerr and MacKenzie are now overseas.

Although equipment had not arrived, examinations and actual work started early in October, but the first real test came in the middle of November. It was then that instructions came from the D.O.C. to send detachments to Saskatoon in order that the Saskatoon Light Infantry be examined and dental History Sheets made out for each man. A great deal of emergency work had to be done such as extractions and treatments, with some filling and prosthetic work, which was urgently needed. The time for departure of the troops was cut from six to three weeks and that meant that the Dental Corps worked every night, often until 10 o'clock. Lieut. R. D. Reid at Moose Jaw was doing equally well for the 77th Battery.

Lieut.-Col. Cameron was highly pleased with results, as all equipment for four officers had to be borrowed or rented and particularly as the D.O.C., Brigadier-General Russell, paid a splendid tribute to the first real showing of the Corps.

Fortune favoured the Corps in the selection of the N.C.O's, headed by B.M.S. R. J. Rowe, formerly with the Ash Temple Company, who took to documents and military forms as a duck does to water.

To the last man the Officer Commanding was a stickler for good references and the results show now, as there is not a mark on the crime sheet of anyone in the Corps.

Military training commenced almost from the first week and at the annual inspection under the D.O.C. in the Armouries, the Dental Corps came in for some very complimentary remarks on their fine showing as soldiers.

Training for chair assistants commenced early in January under Major Gregor Smith and assisted by all the officers of the Corps. Classes were held twice a week at which, demonstrations and lectures were given along the lines of the Syllabus prepared by Dental Headquarters in Ottawa. Later examinations were held and every effort was made to bring to the personnel of the corps the vital importance of doing first class work and of treating the soldiers in a kind, courteous manner, so as to gain the good will of the troops and of their commanding officers. The fact that the Dental Corps is on the spot and that this is a testing time, not only for it but for the dental profession, was in various ways brought to all the members of the Corps.

A feeling of loyalty for the Director of Dental Service, Colonel F. M. Lott, who is putting so much into the work and for the whole Corps was implanted and the thought that every man must keep up his end was thoroughly stressed.

Through the I.O.D.E. pictures, a radio, magazines, books, and other luxuries were supplied. Mrs. G. L. Cameron, Mrs. Gregor Smith, Mrs. H. R. Kerr, and Mrs. T. J. Cooke gave teas and arranged entertainments for the members of the Corps at different times.

The Regina Dental Society generously donated twenty-five dollars which has been used to buy different things required by the other ranks. This society and that of Moose Jaw

acted as hosts for the entertainment of the officers on several occasions during the winter, while the Regina Dental Nurses and Assistants did their part nobly in giving parties for the N.C.O's and men of the Corps.

Now in camp we have a five chair clinic with all north light in the hospital building, a bright laboratory all in white enamel paint, a good sized orderly room, stores room, and X-ray room, make up a splendidly equipped clinic, and with the electric engines and complete dental requirements there is every reason to believe that an excellent class of work will be done for the steady stream of soldiers that pour into the clinic from 8.30 in the morning till 5 p.m.

At 7.30 a.m. three times a week military training under Sergeant-Major Morton of the P.P.C.L.I. is held for all other ranks and woe betide the man who appears in an untidy condition or is careless or inattentive on parade.

The proper balance between dental service and military training is aimed at with, of course, the accent on dentistry and it is hoped that No. 12 Company, in all its activities, will meet with the approval of the D.D.S., Colonel F. M. Lott, on his visit of inspection.—*Dundurn Camp, Saskatchewan, July 1.*

NEWS FROM THE PROVINCES

ONTARIO:

Matriculation Alterations in the Province of Ontario

In view of the changes that are proposed in the system of preliminary education in the Province of Ontario it was arranged that Dr. Duncan McArthur, Deputy Minister of Education, should meet the Board of Directors of the Royal College of Dental Surgeons by appointment. In order that the members of the College may better understand these alterations a brief summary of the interview follows:

Formerly the whole educative process had been, first, the system, and second, the child, while the new procedure will be to make the child first and the system second. This will be accomplished mainly by the use of options.

Until a few years ago the secondary school was definitely a pre-University training course. Conditions have changed. The general increase in wealth and the rise in the standard of living has brought secondary education to a lower social strain. Employing institutions have set a standard for the matriculation. The secondary school has now become the common school of the masses whereas a few years ago the public school provided enough education to meet the prevailing conditions.

The end result is that many more are going to high school than formerly and also the percentage is greatly increased in regard to the number who will not go to University. The secondary school has a changed function and no longer is a preliminary school for the University but rather a purveyor of general education. The problem is to give the pupils a good general training rather than a specialized training.

In the past a pupil could not obtain credit for taking subjects such as Home Economics for girls or Shop Work for boys. These courses have been regarded as of value, not merely because they provided a preparation for practical work, but, more particularly, because of their direct and immediate educational value in giving an opportunity to pupils to "try themselves out" in forms of activity requiring manual skill and other types of skill not tested by the ordinary academic training.

The hope has been expressed that, by reason of this opportunity for the testing of aptitudes, there may be fewer misfits in the adjustments of both boys and girls to the necessities of earning a livelihood.

There exists today a keener public interest

in the scientific. Interest in health is greater. The Department of Education is being repeatedly requested to teach more on health in the schools.

It has become impossible to add more compulsory subjects to the present course. Some method had to be found to include the new required subjects so a system of option has been set up. To apply these changes directly to Dentistry, we might consider whether the subjects of Shop Work and Biology, if chosen by a student, are of more usefulness or not, than Latin. An examination of the following outline will give some idea as to how this idea of options is to be applied.

Pass or Junior Matriculation will be known as Grade XII.

Honour Matriculation will be known as Grade XIII.

Matriculation Requirements Suggested for the Faculty of Dentistry But Not Yet Passed by Council

. . . . A candidate for admission to the First Year in the Faculty of Dentistry must present the following certificates:

(a) The Ontario Secondary School Graduation Diploma awarded upon the completion of Grade XII in the General and Academic courses.

(b) A certificate or certificates issued by the Department of Education of Ontario showing that the candidate has passed the Grade XIII examinations in the following subjects of the General and Academic courses:

English.

Mathematics (two of Algebra, Geometry, Trigonometry).

Science (two of Physics, Chemistry, Botany, Zoology).

One of French, Latin, German, Greek, Italian, or Spanish.

One of History, a mathematical paper not chosen elsewhere, Music, two Science papers not chosen above, a second foreign language.

D. W. Gullett,
Sec'y. R.C.D.S. of Ontario.

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Hamilton Dental Association

The Spring Tournament of the Toronto and District Golf Association was held at the Thornhill Golf and Country Club on June 12, fifty-five golfers participating.

The president, Major D. S. Coons, presided at the dinner, and at the presentation of the prizes, which were as follows:—

1st Flight

Low Gross—R. Bennett 80
—J. Trelford 80
Low Net —F. W. Dawson 82-14 68
2nd Net —H. C. Roos 82-12 70
Best Nine—J. D. Evans 39

2nd Flight

Low Gross—P. G. Anderson 90
—W. G. McIntosh 90
Low Net —H. A. Swales 92-22 70
—H. Haalderson 92-22 70
Best Nine—J. Mc Mulkin 42

3rd Flight

Low Gross—C. E. Brooks 100
—C. T. Moyle 100
Low Net —F. S. Louchs 94-25 69
—M. Ott 98-25 73
Best Nine —W. A. Dalrymple 45

Visitors

Low Gross—G. E. Stanley 88
Low Net —D. Rollaston 96-21 75

Birdies (1)

H. C. Roos; F. W. Vivian; F. W. Dawson; A. Elliott; L. Hugill; L. Harris; W. Holmes; J. McNeill; C. R. Ryan.

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Congratulations! Kitchener!!

On Friday evening, June 21, another infant Chapter was born to the Ontario Dental Nurses' and Assistants' Association. Nine Kitchener Girls met in the Medical Arts Bldg. and with the assistance of Mrs. Marion Edwards, Toronto: Misses Tomye Turner, Toronto; and Iverna Rae, Hamilton; were organized as the "Kitchener District Dental Nurses and Assistants."

They chose as their first President and leader, Miss Edith Inkster, from the office of Dr. A. C. Brown. With Miss Inkster will be Miss Jean Steele as Vice-president, Miss Ruth Clark as Secretary and Miss Ruth Rotters as Treasurer.

It is the intention of this group to interest several assistants in the district—Galt, Preston, Elmira and Stratford; and they will prove a real live Chapter for Ontario.

Mrs. Edwards kindly presented the chapter with their first Minute Book and welcomed them as charter members for their district. Following this refreshments were served and the meeting adjourned to meet again for the first regular meeting on the first Tuesday in September.

Best Wishes and Good Luck to You Kitchener, From All Ontario.

MARION EDWARDS,
Publicity Convener.

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War Guests

According to arrangements completed by Dr. W. M. Twible, Chairman of the Public Dental Health Committee of the Academy of Dentistry, Toronto, 1200 children, "War Guests" from England, have had a dental examination carried out by a staff of forty volunteer dentists in Toronto in the Dental Infirmary of the Faculty of Dentistry, University of Toronto. This has been done on request of the Department of Health in the Province of Ontario.

QUEBEC:

Free Dental Service for Indigent

The continued maintenance of free dental clinics for indigent children of Greater Montreal was reported by the Children's Dental Committee. All cases were financed through the efforts of the 14 organizations represented on the Committee with the exception of Westmount where the service was paid for by the City. Special schools were adopted by the Junior Red Cross, the Gyro Club of Montreal, the Outremont and North End Women's Club, two chapters of the I.O.D.E., the Jewish Junior Welfare League and the Lachine and Verdun Teachers' Associations.

On the advice of the Canadian Dental Hygiene Council efforts were concentrated on the children in the lower grades in an effort to build up healthy mouths for the future. All children treated were sent on the recommendation of their school principals and on the advice of school doctors and nurses.—*Montreal Gazette.*

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Dr. Strean Honoured

Dr. Lyon P. Strean, D.D.S., M.Sc., F.A.D.S.M., of Montreal, has been awarded the degree of Master of Science at McGill University for his work on the immunization against whooping cough.

ALBERTA:

Edmonton Dental Society

New officers of the Edmonton Dental Society for 1940-41 are:

President—Dr. D. R. McNabb.
Vice-President—Dr. V. M. Lloyd.
Secretary-Treasurer—Dr. George Decker.
Social Convener—Dr. W. P. Calhoun.

SASKATCHEWAN:

Convention Cancelled

It was with a great deal of regret that the officers of the Saskatchewan Dental Association decided to cancel, for this year, the Convention which was to have been held at Waskesin, in the Prince Albert National Park, late in June. The difficulty of securing clinicians and the present grave world conditions seemed to make it advisable.

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Moose Jaw Dental Society

The final meeting for the season of the Moose Jaw Dental Society was an occasion for entertaining the members of the Regina Dental Society. After a little friendly rivalry at a bowling alley, the visitors were entertained at a dinner in McIntyre's Rose Room. After the dinner a number of informal, short talks and general good-fellowship made up the balance of a very pleasant evening.

Dr. Irwin Honoured

Dr. W. W. Irwin, Moose Jaw, President of the Saskatchewan Dental Council was recently elected President of the Moose Jaw Wild Animal Park Society, an organization that administers a large tract of land, close to the City, stocked with animals native to the West which are kept in their natural, free state, as well as a large number of other wild animals and birds suitably caged. The Park is a popular picnic and tourist resort.

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Sympathy to Dr. Brett

The sympathy of a large circle of friends is extended to Dr. A. J. Brett, Regina, on the recent passing of his wife, after a prolonged illness. Dr. Brett is Secretary of the Dominion Dental Council.

MANITOBA:

Manitoba Dental Association

The annual meeting of the Manitoba Dental Association which was to have taken place on the second day of the Centenary Celebration and had to be postponed because of the intense interest in Dr. Harry A. Gilchrist's demonstration of the Fournet-Tuller impression technique was held in the Medical Arts Bldg., Club Rooms, in Winnipeg on Monday June 17. At this meeting a resolution was passed expressing the hearty approval of the type of clinic and clinician (Dr. Gilchrist) which was seen at the celebration held on May 27-28 and expressing the hope that we have such clinics oftener than once a year.

One of the interesting reports received at the meeting was given by Dr. M. H. Garvin, the Manitoba delegate to the Canadian Dental Association meeting held in Toronto in May. It is expected that all the provincial legal bodies will be asked to contribute $4.00 per annum for every registered dentist in good standing. The Manitoba Dental Association went on record in favor of this seven years ago and now hopes that those who have not done likewise will not delay.

Another interesting report was that of the travelling dental clinics sent out under the management of the Canadian Foundation for Preventive Dentistry. These clinics, which were free at the start, 11 years ago, are now, and have been for years about 70 per cent self supporting. The great success of the clinics is largely due to the efficient management and supervision of the chairman of the committee, Dr. A. E. Proctor. The report follows:

Number of operating days	207½
Number of Clinicians	21
Number of Schools represented	108
Number of Clinics held	47
Sponsored by School Boards, teachers or trustees	24
Sponsored by Women's Institutes, United Farm Women of Manitoba, or other Ladies' Aids	23
Total Number of Patients	4165
Operated on	2914
Total Number of Operations	8176
Extractions, deciduous,	2513
Extractions, permanent,	629
Fillings	4934
Treatments	510
Prophylaxis	159
Extractions under general anaesthetic	3
Special cases referred	8

Dr. Abernethy was noted for his brusqueness in dealing with even the most distinguished patients and his almost universal prescription was "Eat less." Once he was visited by the Duke of York of a century ago. The doctor said nothing, but just stared at his visitor, whistling softly to himself.

At last the duke exclaimed: "I suppose you know who I am?"

"Suppose I do! The remedy is the same. If your Royal Highness wishes to be cured, he must follow the strategy of Duke of Wellington in the Peninsula. Cut off the supplies and the enemy will quickly leave the citadel."—Belfast Telegraph.

EMPIRE NEWS

GREAT BRITAIN:

Compulsory Service

(Condensed from Editorial in British Dental Journal, June 15, 1940.)

Members of the dental profession will henceforth be under the same liability for service as members of the medical profession. It should be emphasized that this liability for service is restricted to service in a professional capacity and that a dentist who is for any reason not accepted for a commission in the dental branches of one or other of the Forces will be free to continue in civilian practice and will not be liable for service in any other capacity.

That compulsion is to be introduced does not mean either that every dentist within the age-groups will necessarily be accepted for service, even if medically fit, or that dentists, who are outside the age-groups which have been called upon to register for service, are precluded from volunteering for service in their professional capacity. Men in the latter category will still be eligible for commissions, and in both cases it will be the duty of the Dental War Committees to satisfy themselves that any particular dentist can properly be released from his civilian work.

The Dental War Committee will ensure that those dentists who are left to carry on the essential task of safeguarding the health of the civilian population are properly distributed over the whole country.

That this will entail heavy sacrifices goes without saying. The men who are called up will, in many cases, be required to leave practices which they were building up, with consequences which it is impossible to foresee. It is fortunate that in most parts of the country ample provision has already been made for dealing with exactly such a contingency by means of practice protection schemes which will, at least, protect the goodwill of the absentee practitioner and preserve the nucleus of his practice intact.

But however great the changes called for may prove to be, and however heavy may be the sacrifices demanded, they will be faced in the same spirit of determination which has been so magnificently displayed by our fighting men during the epic struggle on the Flanders Plain. The profession will rejoice to feel that at long last there is a prospect of it being used to the full in the service of the nation and of the great cause to which it is dedicated.

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The Army Dental Corps in Flanders

(Condensed from British Dental Journal, July 1, 1940.)

Although it is as yet too early to attempt to tell in detail the story of the role played by officers and men of The Army Dental Corps during the historic retreat of the B.E.F. to Dunkirk, it is abundantly clear, from the article which we are privileged to publish on the work of the Corps, that they have worthily upheld the high tradition of both the British Army and the dental profession.

Accompanying the Army from France into Belgium they continued to do everything within their power to ensure that the troops for which they were responsible should not be handicapped by dental disabilities.

It will be readily gathered by anyone able to read between the lines and to visualize the conditions which prevailed during the retreat, that when it was no longer possible for officers of The Army Dental Corps to carry on their own work they speedily adapted themselves to the conditions and made themselves useful in many ways, besides the obvious one of assisting their medical colleagues.

The story of the officer who took charge of 300 men who were without an officer and brought them safely out of the inferno may be quoted as an example of magnificent soldierly spirit. We know, too, that when the tale comes to be told in full, there will be many stories of a similar kind which will redound to the credit not only of the individual officers and men, but also to that of the Corps to which they belong.

INDIA:

Centenary Celebration

On April 7, 8 and 13 a Centenary Celebration of Dental Education was conducted by the Dental Colleges, Dental Associations and Dental Journals of India.

The program included a public gathering of

the dental and medical professions, a Centenary ball and a scientific program.

A Review of Dentistry in various countries and in India was presented. At present there is one dentist to 70,000 inhabitants in India and 95% of these dentists are not qualified. The dental leaders in India are looking forward to standardization of dental education, adequate dental care for school children and the poor, also to the awakening of the government to the fact that dentistry is an important factor in the conservation of public health.

SOUTH AFRICA:

Cape Eastern Branch

It has been agreed that £700 should be the commencing salary required for all full-time permanent appointments at hospitals.

It has been resolved to launch a voluntary appeal to members of the profession to raise £5000 for medico-legal work and combating illicit practice, a quarter of each Branch's contribution to be returned annually to the Branches for the purpose of this work.

GENERAL NEWS

Dr. Merritt Honoured

The honorary degree of Doctor of Science was awarded to Dr. Arthur H. Merritt, of New York, President of the American Dental Association at the recent commencement exercises of Columbia University.

The Jarvie Medal awarded annually by the Dental Society of the State of New York for outstanding contributions to the progress of dentistry was also bestowed on Dr. Merritt at the Annual Meeting of the State Dental Society at Buffalo.

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New Dental Pamphlet Just Off the Press

A new pamphlet, "Building Sound Teeth for the Coming Baby", has just been issued by the New York Tuberculosis and Health Association and is meeting with favourable response. It covers a wide range of dental hygiene topics of vital importance to the prospective mother and pertinent information for professional workers such as the time when the child's teeth begin to form, how the prospective mother can provide the best possible teeth for her child, a list of foods that build good teeth, and an outline of the dental care a prospective mother needs. The text has been submitted to and approved by more than a score of authorities in the dental and medical fields and is designed particularly for nurses, nutritionists and social workers.

The pamphlet was prepared by the Association's Committee on Community Dental Service in co-operation with the Dental Education Committee of the Lower West Side Health Centre of the Department of Health. Copies may be obtained at ten cents each including postage, by communicating with the New York Tuberculosis and Health Association, 386 Fourth Avenue, New York.

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Dean F. B. Noyes to be honoured

Dr. Frederick B. Noyes, who is retiring as Dean of the University of Illinois, College of Dentistry, September 1, will be honoured at a testimonial banquet on the evening of September 14, 1940, at the Lake Shore Athletic Club in Chicago, which is being sponsored by the Faculty of the University of Illinois, College of Dentistry. Because of the prominence of Dr. Noyes in organized dentistry, dental education and dental research, this occasion promises to be outstanding. For further information or reservations please address the Chairman, Dr. Allan G. Brodio, or Dr. Stanley W. Tylman, 808 South Wood Street, Chicago, Illinois.

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U.S.A. Federal Funds Granted For WPA Dental Project in Chicago

With the actual granting of federal funds the last obstacle in the way of the huge WPA

dental project for the City of Chicago has been removed. Over a million dollars, contributed by federal and city governments, are now available for the construction and equipment of school clinics and for the employment of personnel to staff the project. Dental examinations will be given to all children in the school system, but free care will be provided only for those children who have been established as needy. Two hundred dentists will provide the professional services for the project which will give employment to more than a thousand persons in all. The professional work will be done by legally qualified dentists at a salary above the scale ordinarily applied to WPA employment. The supervision of technical procedures will be the task of dentists. Work has already been commenced on the examination of 20,000 school children and it is anticipated that this phase will be completed before the start of the vacation period.—*Bul. Chi. D. Soc., June 14, 1940.*

Stole Man's Teeth

From Copenhagen it is reported that a man has been sentenced to four months' imprisonment for a number of thefts, including that of a set of dentures from the mouth of a sailor who had fallen asleep in a cafe.—*Dental Magazine and Oral Topics.*

Mr. E. C. Cameron

Dr. John A. Bothwell of Toronto has received the announcement of the death of Mr. E. C. Cameron of Clear Lake, Minnesota, on June 4th last. Mr. Cameron was well known to many Canadian dentists in connection with his work in teaching economics of dental practice. He was an inspirational teacher and a kindly gentleman. He conducted classes, known as the Cameron Course, in many Canadian cities from Toronto to Vancouver. Many dentists benefited greatly from attending his classes and will grieve at Mr. Cameron's passing.

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."

Jacob Rubin, of Montreal, Quebec, died June 20 after a long illness. He was graduated from Bishop's College in 1905. In the first Great War he served in the Canadian Army Dental Corps and on his return founded the Mount Royal Dental Society. He was a member of the Montreal Dental Club and a Governor of the College of Dental Surgeons of the Province of Quebec.

Among other organizations with which Dr. Rubin was associated were: Baron de Hirsch Institute, Federation of Jewish Philanthrophies, Young Men's Hebrew Association, M.A.A.A., Canadian Rugby Football Union, the Montreal Football Club, Montefiore Club, Elmridge Golf and Country Club, the Masonic Order and the Shaar Hashomayim Synagogue.

Dr. Rubin is survived by his widow, a daughter and two sons.

Arthur D. Childerhose, of Toronto, Ontario, aged 53, died July 3. He was graduated from the R.C.D.S. of Ontario in 1912. Following post-graduate study in New York he commenced practice in Ottawa, later moving to Toronto.

He was a Mason and attended Yorkminster Baptist Church.

Dr. Childerhose is survived by his widow, four sisters and two brothers.

D. V. McRae, of Aylsham, Saskatchewan, formerly of Saskatoon, died July 3.

Dr. McRae is survived by his widow, one daughter, three sons and two sisters.

. . . SECTION FRANÇAISE . . .

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Discours du Président, le Dr. Auguste Massicotte, au Banquet du Congrès des Trois-Rivières

Excellence,
Monsieur le Ministre, Monsieur le Maire,
Messieurs les invités d'honneur,
Mesdames, mes chers confrères.

J'éprouve en ce moment une grande joie mêlée de beaucoup de fierté.

Le congrès des Chirurgiens-dentistes de langue française de l'Amérique du Nord s'est ouvert cet après-midi dans notre bonne ville Trifluvienne et déjà tous sentent qu'il connaîtra un éclatant succès.

En souhaitant de nouveau à tous les congressistes et à nos hôtes d'honneur la plus respectueuse et la plus fraternelle bienvenue, je tiens à renouveller ma gratitude à tous ceux qui ont contribué au succès de ces assises professionnelles.

L'active coopération s'est exercée heureusement depuis plusieurs semaines et, avec le concours généreux de l'Honorable Ministre de la santé, avec aussi la bienveillance aimable de nos autorités religieuses et civiles, ce beau travail d'équipe a donné des résultats dont vous pouvez déjà apprécier l'ampleur.

Ce soir, je tiens à souligner spécialement la présence du Dr. Boissinotte qui représente dignement notre gouvernement provincial dont l'appui financier a rendu possible notre congrès.

Je salue aussi et je remercie son Honneur le Maire, monsieur le Président de la

Commission Scolaire et Messieurs les Députés, M. le Supérieur, M. le docteur De Blois, qui nous apportent une fois de plus un encouragement précieux.

Excellence, en acceptant d'être des nôtres ce soir, vous nous honorez beaucoup et vous affirmez éloquemment que l'Eglise s'intéresse de près à tous les groupes et à toutes les activités de la société humaine.

Cette sollicitude nous touche et elle nous indique qu'il nous faut en retour accorder à l'Eglise et à ses chefs la plus filiale et la plus entière fidélité.

Mes chers collègues, Messieurs les officiers de nos divers comités ou associations, Messieurs les officiers ou membres de diverses sociétés professionnelles, Messieurs nos invités d'honneur, je vous adresse aussi mon plus cordial et mon plus amical salut.

Je sais plus que tout autre, la part de mérite qui vous revient dans la réussite complète de notre congrès et je vous prie d'accepter ici l'hommage de ma très vive reconnaissance.

Et vous, Mesdames, il est à peine besoin de répéter comme votre présence nous réjouit, et nous stimule.

C'est un plaisir toujours neuf pour les hommes de dire aux Dames des choses aimables. . . Et, pour les dames, la joie d'entendre ces propos gentils, ne s'use pas paraît-il.

Recevez donc une fois de plus nos hommages et nos remerciements. Vous occupez une grande place dans la vie de la nation . . . et dans le coeur des hommes qui, sans vous n'auraient pas toujours le courage de faire face aux devoirs complexes et difficiles de la vie.

En vous saluant ce soir, je mets beaucoup plus que de la galanterie dans mes propos; j'y mets de la gratitude et une sincère admiration.

Mesdames, Messieurs, ce n'est pas uniquement le désir de nous grouper dans une fête de famille qui a attiré de partout tant de personnes que leurs obligations professionnelles ou domestiques auraient pu retenir dans leur milieu respectif.

La joie de reprendre contact, de renouer des relations d'amitié, d'échanger des impressions ou des opinions, a contribué pour une part au ralliement actuel, mais le motif principal qui amène utilement les intérêts de la profession.

Dans un monde qui évolue rapidement chaque rouage doit se tenir au point s'il veut bien remplir son rôle dans l'ensemble.

Chaque groupe humain, chaque association, chaque secteur de la société, tous les *organismes enfin,* se doivent d'aller de l'avant, de faire leur part pour maintenir la société en bon état physique et moral.

Votre empressement à répondre à nos appels, mes chers confrères, prouve que l'Association des chirurgiens-dentistes de langue française de l'Amérique du Nord n'entend pas rester en arrière.

Comme tous les autres groupements professionnels, nous avons à étudier des problèmes de toutes natures, problèmes techniques, problèmes professionnels, problèmes sociaux ou moraux et nous entendons bien ne pas faillir à notre devoir.

Les congrès généraux, comme les réunions régionales ont pour but direct l'étude et la solution des problèmes toujours nouveaux qui se posent.

Ces sessions d'études et de discussions ont une grande portée et ils contribuent pour leur part au relèvement et à l'avancement de la société.

Les intérêts en cause ne sont pas les seuls intérêts strictement particuliers de l'Association des chirurgiens-dentistes.

La qualité technique et la valeur de chacun d'entre nous ont des répercussions sur le reste de la société. Il faudra nous le rappeler une fois de plus au cours des séances de ce congrès.

Nous entendrons ce soir quelques orateurs qui nous encourageront et nous guideront dans nos efforts vers le mieux.

Discours au Banquet du Congrès de l'Association des Chirurgiens-Dentistes de Langue Française de l'Amérique du Nord

Monsieur le Président, Excellence, S.H. monsieur le Maire,
Mgr. le Chanoine, monsieur le représentant du gouvernement,
Mesdames, Messieurs,

Depuis le matin, on a soumis votre attention à une considérable épreuve. Ecouter des heures durant, même les sujets les plus intéressants, ne laisse pas de causer une certaine lassitude de l'esprit qui demande une détente. Je n'irai pas, en ces heures récréatives et de bonne camaraderie, vous accabler d'un long discours. Il me sera d'autant plus facile de combler vos désirs, que je suis maintenant entraîné aux discours écourtés, aux discours que l'on termine au milieu d'une phrase aussi bien qu'au commencement ou à la fin d'une pensée. (Le docteur Hamel fait évidemment allusion ici à la limitation de la durée des discours à l'Assemblée législative.)

Sante de la Chirurgie-Dentaire

J'ai à proposer la santé de notre profession. Ni malade, ni prospère, la chirurgie-dentaire progresse tout de même au point de vue culturel et technique. Nos efforts depuis trente ans pour relever son niveau n'ont donc pas été vains. Que de luttes nous avons dû soutenir pour atteindre notre but! Que d'obstacles nous sont venus des meilleurs milieux pour nous empêcher de rendre plus sérieuse, plus probante l'épreuve de l'immatriculation. Enfin aujourd'hui, à ce que l'on dit, il ne se compte plus que des bacheliers à l'étude de la chirurgie-dentaire à l'Université de Montréal. Et tout le monde s'en réjouit, même nos adversaires les plus acharnés d'il y vingt-cinq ans.

C'est incontestable, nous avons progressé au point de vue culturel, en dépit d'entraves multiples et variées. Néanmoins, le chemin à parcourir reste vaste.

Si la formation secondaire des aspirants à l'étude de la Chirurgie-Dentaire s'offre désormais satisfaisante, puisque les bacheliers ne sont plus l'exception mais le grand nombre, il resterait encore à perfectionner davantage la formation universitaire en la rendant plus médicale.

Retour a la Medecine

Si nous voulons des progrès rapides, sans toutefois brûler les étapes, nous devrons nous rapprocher davantage de notre mère la Médecine. En enfants prodigues, nous nous en sommes quelque peu éloignés. Par témérité, nous nous croyions assez puissants pour nous isoler de notre première source de vie. Ce fut une erreur, erreur regrettable. La Chirurgie-Dentaire n'est qu'une spécialité de la médecine, et c'est comme fille de la Médecine qu'elle peut se glorifier de ses origines et espérer jouer classiquement son rôle. Un dentiste de première valeur devrait, sinon être un médecin complet, du moins avoir reçu une plus large formation médicale dans une Faculté de Médecine où on lui aurait fait grâce de certains cours peu utiles à l'exercice de son art, pour les remplacer par des sujets plus appropriés à la pratique de la science dentaire.

Une Reforme Entre Combien D'Autres

Pour ne citer ici qu'une réforme urgente, mentionnons la diététique. Cette science de l'alimentation ne devrait-elle pas être tout aussi connue du dentiste que du médecin? La diététique, n'est-ce pas la dentisterie préventive aussi bien que la médecine préventive?

Industriel et Professionnel

Comme le médecin, le dentiste vit des infirmités humaines. Son gagne-pain lui vient de la maladie. Cependant ses efforts, comme ceux du médecin, tendent à enrayer la source des maux de l'homme, en vue de lui conserver la santé.

L'industriel et le commerçant recherchent, eux, la multiplication des besoins pour leurs produits. C'est légitime, normal. Le médecin et le dentiste, au contraire, travaillent à restreindre le besoin que l'humanité peut avoir de leurs services. Toute autre attitude serait répréhensible et anormale. Tous deux veulent vulgariser les notions prophylactiques et hygiéniques susceptibles de diminuer les maladies qui, en somme, les font vivre. Tout paradoxal que cela puisse sembler, ce n'est tout de même que vérité.

L'Hygiene

L'hygiène, sous toutes ses formes, a pour but la prévention de la maladie. Dentistes comme médecins, en l'enseignant, fournissent donc au public des moyens pour la conservation de la santé, de sorte que si leurs conseils étaient mieux observés, la clientèle se ferait de plus en plus rare chez le dentiste et chez le médecin.

C'est ce noble désintéressement qui grandit une profession et la distingue du commerce et de l'industrie, sans pour cela rapetisser l'idéal élevé d'un honnête industriel ou commerçant. Dans la société, tous nous devons travailler au bonheur des autres, par des moyens différents. Dentistes et médecins s'évertuent à conserver ou à redonner la santé au corps. A cette fin, ils secondent le travail spirituel du prêtre qui désire avant tout la santé de l'âme, principale source de véritable bonheur, condition première pour le maintien de la santé physique. Les vertus chrétiennes demeurent encore les meilleurs auxiliaires des lois de l'hygiène, les véritables amies de la Santé.

De leur côté, industriels et commerçants probes cherchent à satisfaire les besoins variés et honnêtes des hommes qu'ils soient malades, convalescents ou en parfaite santé. Ainsi, tout en poursuivant la recherche du profit pour eux, ne travaillent-ils pas à accroître le bonheur de leurs semblables? Toute l'activité humaine, selon le point de vue chrétien, tend au bonheur des autres.

La santé joue un rôle tel pour le bonheur d'un peuple que le service de l'hygiène ou de la santé, dans un Etat non imbu de matérialisme, doit être considéré comme le plus important. Ce service, va sans dire, ne saurait être pleinement efficace sans une étroite collaboration avec l'Eglise.

Je regrette presque de vous avoir promis la brièveté; j'ouvre, je le constate, un horizon bien vaste. La maladie trop souvent fille de la débauche et de l'intempérance, ruine financièrement non seulement l'individu et la famille mais aussi l'Etat. Que de preuves mathématiques je pourrais apporter ici, si je ne vous avais promis du répit.

Primo Vivere

Le dentiste, tout en voulant la santé de sa profession, doit aussi se préoccuper de la santé des siens. Cette santé a préséance sur celle de sa profession, cependant que l'une vient au secours de l'autre.

La santé d'une profession provient de la culture de ses membres, de leur probité scientifique, de leur observance des règles de l'éthique professionnelle, mais tout cela ne suppose-t-il pas que les dentistes puissent d'abord faire leurs frais et subvenir aux besoins de leurs familles?

Les Obstacles a la Sante d'une Profession

Le dentiste réduit à la misère ne peut guère se cultiver. Les soucis l'accablent et paralysent, en quelque sorte, son effort intellectuel. Les règles de l'éthique deviennent pour lui un fardeau, un obstacle. Son honnêteté subit des assauts quasi irrésistibles. Ruiné, épuisé, il ne recommande parfois au patient que ce qui rapporte le plus de profit avec le moindre effort, négligeant ainsi les intérêts du client pour ne songer qu'au gain devenu désespérément nécessaire.

Le dentiste vit dans une société éduquée qui reconnaît et apprécie ses services professionnels. Malheureusement, cette société profondément appauvrie par une centralisa-

tion excessive de la richesse, n'est plus en mesure de rémunérer son travail. Nous vivons à la période des monopoles, dernière étape où conduit la libre concurrence. Les monopoles ont ouvert la voie au socialisme. Voyez la législation: longue kyrielle de lois pour subvenir à la détresse, à la mendicité d'un prolétariat sans cesse croissant. Devenu pauvre lui aussi, le dentiste reste en présence d'une foule de miséreux qui réclament ses services. Il en est de même pour le médecin, avec cette différence que sa profession est presque totalement étatisée sous sa forme la plus pénible: le médecin au service de l'Etat sans rémunération aucune.

Il ne saurait être question d'accroître nos honoraires pour remédier au mal dont souffre notre profession, comme le suggèrent d'aucuns. Ce palliatif ne ferait qu'aggraver le mal chez le peuple et chez le dentiste, sans compter qu'il serait illogique et souverainement injuste de vouloir exiger davantage de gens déjà dans l'impossibilité d'acquitter les honoraires les plus modiques.

Etudiez les statistiques et voyez combien de pères de famille sont en état de régler la note du médecin ou du dentiste, une fois le logis, le vêtement et la nourriture payés. Plus de rêves, plaçons-nous devant des réalités.

Une Cooperative

Nous devons réagir contre notre individualisme ruineux. Nous devrions organiser une coopérative d'achat, imiter en cela les dentistes de France qui ont fondé en 1902 une véritable coopérative. Nous ne devrions pas craindre d'imiter une expérience vieille de près de quarante ans, afin de rendre nos services plus accessibles à un peuple pauvre. Efforçons-nous donc de réduire nos dépenses fort élevées en utilisant le meilleur moyen de nous procurer des matériaux à un prix convenable, la coopérative. Je devais vous en parler plus au long durant ce Congrès, mais un programme trop chargé a contraint les organisateurs d'éliminer ce sujet.

La coopérative ne saurait être le remède à tous les maux qui précipitent notre société vers un abîme, mais comme c'est un moyen précieux de relèvement social et économique, l'élite ne devrait pas, sur ce terrain, se laisser devancer par la classe ouvrière.

Prenons donc les devants; mettons fin à notre individualisme; comprenons nos intérêts, ils sont intimement liés au bien-être des autres.

Soyons des Apotres de la Restauration Sociale

Notre profession est appelée à jouer un rôle dans la restauration sociale. Parmi l'élite, les premiers à évoluer et à comprendre furent les prêtres, surtout ceux en contact étroit avec la misère du peuple; puis l'évolution atteignit les médecins. Je ne crois pas exagérer en plaçant notre profession au troisième rang parmi les divers groupements de l'élite à saisir la nécessité d'une rénovation économico-sociale et à préparer le peuple pour un ordre nouveau.

Mesdames, messieurs, je termine et vous laisse au milieu d'idées que je n'ai qu'effleurées. Vous jugerez si elles méritent votre étude pour les compléter et les "concrétiser".

La santé de notre profession reste en étroite dépendance avec celle de la société. Que notre profession, de concert avec une élite de choix, travaille donc sans tarder et avec persévérance à redonner à l'humanité son sourire d'autrefois; sourire de contentement; sourire aux beautés de la nature qu'elle ne sait plus contempler; sourire du juste penché sur la misère des autres; sourire du gueux soulagé dans sa souffrance et ses privations par la charité du riche à l'âme chrétienne; sourire de héros plein d'espérance en nos heures d'angoisse; sourire de conquérant devant le rictus satanique de ces appauvrisseurs des masses, de ces semeurs de discorde, de haine et d'injustices.

Soyons les apôtres d'une restauration sociale, tout en demeurant les artisans des restaurations buccales.

6 d'Aiguillon, Québec. PHILIPPE HAMEL

Le Soin des Dents Pendant la Grossesse

par FREDERICK J. LINCH, M.D.
Traduit par Alcide Thibaudeau, D.D.S.

En fouillant la littérature, il est étonnant de constater combien on a peu écrit sur l'importance du soin des dents pendant la grossesse. C'est un fait d'observation commune que les dents à cette époque sont beaucoup plus susceptibles aux maladies, qu'en n'importe quel autre temps. De cette vérité le dicton populaire "un bébé une dent", fait foi sans contredit.

On estime que pendant la première moitié de la gestation, le foetus requiert quotidiennement un demi-gramme de calcium. Mais c'est pendant l'autre moitié que la demande est plus considérable, alors que l'organisme maternel fournit la plus grande partie des sels minéraux requis. C'est donc qu'à ce moment la patiente devrait assimiler au moins un gramme de calcium par jour sous forme de phosphate. Si alors la mère ne reçoit pas ce montant, il en résultera une balance défavorable à sa recalcification et comme conséquence la déminéralisation de ses dents. Cette nouvelle condition peut aussi se rattacher aux changements profonds qui s'opèrent en même temps dans la structure osseuse qui supporte les dents et il peut se produire une sensibilité marquée, de la gingivite, de l'acidité locale et de la carie.

Une des meilleures manières de conserver les dents pendant cette période, c'est l'alimentation appropriée. Une diète suffisamment vitaminée et minéralisée doit comprendre les viandes, les oeufs, le lait, le beurre, l'huile de foie de morue, les fruits et les végétaux. En considérant l'effet nutritif des diètes en rapport avec la structure et la résistance des dents, il faut remonter à l'enfance du patient. Les structures défectueuses sont dues à des diètes manquant des éléments essentiels au développement et à une calcification normale.

On a cru pendant un certain temps que l'infection "focale" est une des causes de pyélite, d'avortement, de fausse couche, de mastite, d'infection puerpérale, de phlébite, d'anémie et des toxémies de la grossesse. Aussi, pense-t-on encore qu'il y a là une cause contributoire aux malformations du foetus et aux maladies hémorragiques des nouveaux-nés. Nickel et Mussey, à la clinique Mayo en 1927 ont rapporté des avortements provoqués expérimentalement chez des animaux de laboratoires, par des injections intra-veineuses de streptocoques prélevés dans des foyers d'infection de malades avortées. Curtis rapporte aussi en 1916 des cas de morti-natalité, où les urines de la mère, le placenta et le sang du coeur du foetus contenaient un grand nombre de streptocoques. Quand par voie intra-veineuse on injecte de ces organismes à une mère cobaye enceinte, elle avorte invariablement.

Quant aux relations des dents infectées avec les toxémies de la grossesse, on a émis les suppositions suivantes: Un foyer d'infection produit une réaction inflammatoire des reins et entrave leur fonctionnement normal. Cette entrave aux fonctions des reins diminue leur pouvoir d'élimination. On prétend que les symptômes de toxémie des grossesses sont dus à une mauvaise élimination des déchets normaux du foetus; et que cette rétention est le fait de reins avariés incapables de fonctionner convenablement. Alors s'établit selon Kosmack un cercle vicieux. Les toxines d'une infection chronique causent une élimination défectueuse des déchets normaux de la grossesse et à leur tour ces déchets sont préjudiciables au pouvoir excréteur des reins.

Quoique la prophylaxie constitue le principal soin des dents durant la gestation, on peut obtenir de bons résultats par l'administration de calcium, de phosphore, de vitamines et par l'institution d'une diète appropriée. Il n'est pas rare de voir des patients dont l'état de pathologie dentaire est déjà avancé. Les accoucheurs conviennent de retarder le traitement de telle condition après l'accouchement, si cela est possible. D'un autre côté si les conditions sont telles que la conservation des dents est contre-indiquée, il faut corriger cette situation malgré la grossesse. Bien que l'on ait prétendu qu'un tel drainage d'abcès apicaux pouvait ouvrir une porte d'entrée à l'infection dans la circulation générale et avoir un effet délétère sur la grossesse, le fait est que dans les cas rapportés, ces supposés effets ne se sont pas produits.

Si l'on conserve plus longtemps des dents défectueuses, la digestion sera entravée et conséquemment les fonctions nutritives, et il faut ajouter l'influence troublante des douleurs dentaires. Si l'intervention a été décidée, il faut autant que possible procéder graduellement, pour que l'opération soit plus soignée et plus effective. Il en résultera aussi moins de malaises immédiats et moins d'obtacles à la diète et à la nutrition du patient.

En conclusion on peut résumer comme suit tout le sujet du soin des dents pendant la grossesse:

1o—Prophylaxie au moyen de massages à la brosse à dents pour accroître la toxicité des tissus, une diète appropriée avec administration de calcium, de phosphore et de vitamines.

2o—On doit différer après l'accouchement tout travail qui peut l'être sans compromettre les dents.

3o—Toute intervention opératoire qui ne peut être retardée après l'accouchement sans dommage pour les dents, doit être accomplie immédiatement.

Dental Centenary Celebration

Baltimore, Md., Hôtel Belvedère, Dimanche, 17 mars 1940

PAUL E. POITRAS, D.D.S.

Comme préparation aux fêtes de la "Dental Centenary Celebration" l'American College of Dentists, aidé de neuf sociétés dentaires, organisèrent une matinée d'étude, un pélerinage et un banquet, dimanche, le 17 mars.

Le matin, sous la présidence du docteur Alvin W. Bryan, le docteur J. Ben. Robinson, doyen de la faculté dentaire de l'Université de Maryland, prononça le premier discours, il dit entre autres choses: "Les dentistes d'aujourd'hui sont conscients de l'importance de leur profession. Ils doivent savoir guérir non seulement les maladies de la bouche mais encore avoir une science médicale suffisante pour dépister nombre de maladies. La semence jetée, il y a un siècle, à tous les vents, a germé, a donné et donne encore des fruits qui continueront à être utiles à nos successeurs."

Le docteur Eudore Dubeau, doyen de la faculté dentaire de l'Université de Montréal, parla des "Relations dentaires internationales": Il paya un tribut de reconnaissance aux dentistes américains pour l'aide et la sympathie toujours témoignés, spécialement à nous Français du Québec. Il rappela que la Fédération Dentaire Internationale s'efforce, en dépit de la guerre, de créer une meilleure entente internationale entre les dentistes au plus grand bénéfice du public.

L'après-midi, des autobus conduisirent deux cents pèlerins aux tombes des docteurs Hayden et Harris. Devant la porte du caveau où reposent les restes du docteur Horace H. Hayden, au cimetière Greenmount, le docteur George W. Wilson, président élu de l'American College of Dentists déposa une couronne, il dit: "Au nom des dentistes du monde entier et de l'A.C.D., je dépose cette couronne sur la tombe de Horace H. Hayden en reconnaissance de l'immense service rendu, il y un siècle, à la profession et à l'humanité." Une demi-heure plus tard la même céremonie avait lieu dans la partie nord-ouest du cimetière Mount Olivet devant la tombe du docteur Chapin A. Harris.

Le soir, en présence d'une nombreuse assistance et une mise en scène impressionnante, l'American College of Dentists décerna le titre honoraire de membre émérite (honorary fellowship) au Dr. Timothy Oliver Heatwole: ex-professeur et ex-doyen du Baltimore College of Dental Surgery; au Dr. Sydney R. Miller: ex-président de l'American College of Physicians, membre du comité de direction de l'hôpital Johns Hopkins et de l'Université de Maryland; au Dr. Thomas Perren, fils: chirurgien en chef du bureau de santé des Etats-Unis; au Dr. Briggs: docteur en philosophie. Les

membres agrégés du comité se groupèrent sur une estrade avec les futurs décorés pour écouter le docteur Alvin W. Bryan faire leur éloge avant d'être revêtus de la toge noire et rouge, insigne de leur dignité.

La Séance fut clôturée par le docteur Arthur H. Merritt, président de l'American Dental Association, qui dit: "Non seulement les dentistes mais le public doivent s'intéresser aux travaux de recherches dentaires, devant résoudre les nombreux problèmes restés jusqu'ici sans réponse. Malgré un siècle de progrès, le genre humain souffre encore des maladies de la bouche, une seule chose nous reste à faire: détruire le mal à sa racine. Si la thérapeutique, à l'heure actuelle, est bien connue, la prévention est ignorée, cependant l'avenir de notre profession est là. Elle réduira le coup de la dentisterie restaurative. Ne blamez pas le dentiste si des millions d'individus ignorent tout de l'hygiène dentaire. Que pouvons-nous faire sans la coopération des médecins? Ouvrons largement les barrières qui séparent les deux professions: Les dentistes apprendront d'avantage la médecine et les médecins connaîtront mieux la science dentaire."

Baltimore, Md., Theatre Ford, lundi, 18 mars 1940

Le docteur Lucien Brun, d'ascendants français, président général de la Dental Centenary Celebration ouvrit le congrès à peu près en ces termes: "Depuis plus d'un an, les dentistes de l'état du Maryland travaillent à élaborer un programme d'un genre nouveau pour commémorer dignement le centenaire de l'aînée des écoles dentaires du monde. A vous tous, des quatre coins du pays et de l'étranger nous souhaitons la bienvenue. Que votre visite à Baltimore soit profitable à vous et à vos patients. Nous vous remercions de votre encouragement et de votre coopération."

Lui succedèrent son excellence le gouverneur du Maryland, Herbert R. O'Conor; son honneur le maire de Baltimore, Howard W. Jackson; le docteur H. C. Byrd, président de l'université de Maryland; le docteur William Mather Lewis, président du collège Lafayette.

Fifth Regiment Armory

Les exhibitions historiques, éducatives et scientifiques de vingt-trois universités canadiennes et américaines étaient toutes groupées dans l'immense salle du Fifth Regiment Armory.

Au centre était le square historique: face à l'entrée une stèle, entourée d'un massif de fleurs, sur laquelle avait été sculptés, d'un côte, un bas-relief de Sainte-Apolline, patronne des chirurgiens-dentistes, et de l'autre, un mascaron. Au milieu du carré était la reproduction, avec pelouse et arbres, de la première école dentaire, à la droite, pendu au mur, le portrait de Horace H. Hayden et deux montres exposant divers objets personnels; toujours à la droite, deux cabinets dentaires dont Hayden s'était servis et une autre montre contenant les archives de la première société dentaire, au dessus les portraits des deux premiers diplômés du Baltimore College of Dental Surgery et leur dégré; de l'autre côté, le portrait de Chapin A. Harris et deux meubles lui ayant appartenu, une montre renfermant la collection complète du premier journal dentaire, au dessus un groupe des fondateurs du premier collège, le tout borné par quatre salles d'opération: la première représentant l'époque 1840-65, la seconde 1865-90, la troisième 1890-1915, la dernière, un cabinet ultra moderne.

Groupées autour du square, trente-huit baraques, mesurant trente-cinq pieds de longueur sur sept de large et huit de haut, logeaient les exhibitions historiques, éducatives et scientifiques, encerclées par cent vingt-sept exhibitions commerciales.

Pour ne pas étendre ma narration inutilement, je me contenterai d'analyser les exhibitions les plus intéressantes.

L'exposition de l'Université de Montréal rappelait l'histoire dentaire du Canada français: Entre autres choses nous pouvions y voir:

1—Trois boîtes en porcelaine, manufacturées en Angleterre, en 1815, pour les messieurs Gabriel, dentistes à Ludgate Hill, Londres, renfermant une matière obturatrice appelée Gutta-Percha-Enamel et Osteo-Enamel, appréciée des dentistes canadiens d'alors.

2—Deux trousses dentaires et une collection d'instruments à manches d'ivoire d'un usage courant vers 1840.

3—Un coffre dentaire d'acajou, orné d'incrustations de cuivre, contenant des instruments à manches de nacre, bagués d'or: Miroir à main, miroir à bouche, ciseaux à or, brunissoirs, fouloirs à or et à étain, curettes, daviers, etc. Cette boîte, âgée d'environ cent ans, me fut donnée par le docteur Joseph Globensky et j'ai été heureux à mon tour d'en faire don au Musée de la Faculté Dentaire.

4—Le plan en bois et l'original de l'appareil à couler l'aluminium du docteur Ed Casgrain de Québec, breveté au Canada et aux Etats-Unis vers 1890, avec divers articles faits à l'aide de cette machine. La patente en fut achetée par le docteur W. H. Taggart de Chicago au début de ce siècle. Ce dernier avait pour but en plus de vendre sa machine à couler, de collecter une royauté sur toutes les incrustations employées par les dentistes comme la Goodyear Dental Rubber Co. l'avait fait pendant dix-sept ans pour les pièces de prothèse en ébonite. Cependant je crois pouvoir dire que l'amélioration de la technique de la cire fondue commença de cette date. (1907).

5—Le premier exemplaire du Canada Journal of Dental Science édité, publié et rédigé à Montréal, au mois de juin 1868, par W. George Beers aidé dans son travail par le docteur J. Stewart Scott, M.D. de Toronto.

(Ce numéro me fut prêté par monsieur L. A. Renaud, conservateur du musée Château de Ramesay, à Montréal.)

6—Six dentiers d'os d'hippopotame dont un fut sculpté par le dentiste Jourdain de Montréal vers 1850; un autre par le dentiste Pourtier de Québec; un troisième datant de la fin du XVIIIe siècle; un haut et bas, reliés par des ressorts latéraux et un dernier, portant six dents humaines fixées à une base d'os par des rivets d'or.

7—Plusieurs fraises à main de modèle différent—1850; trois marteaux automatiques—1870-1890; des pièces à main et des contre-angle de la même époque etc.

L'Université de Toronto (Faculté dentaire) exposait les produits de nos mines, utilisés en dentisterie. Rappelons seulement qu'une description de cette exhibition a déjà été faite dans le numéro d'avril 1940 du Journal de L'Association Dentaire Canadienne, page 240.

L'Université de Pittsburg étudiait le développement de la prothèse dentaire du XVIIIe siècle à nos jours. Antérieurement à l'emploi de l'ébonite les pièces de prothèse dentaire sont rares. Seul le patient fortuné, pouvant débourser une somme de cinq cents dollars, prix ordinaire du dentiste pour faire un tel travail, remplaçait les dents absentes. George Washington payait à son dentiste, John Greenwood, quinze dollars une réparation. La description des dentiers portés par George Washington vous intéressera: Le bas est divisé en trois sections, une base d'ivoire, creusée d'un côté pour s'ajuster à la crête de la mandibule et de l'autre pour recevoir les dents sculptées, en deux parties, dans une défense d'éléphant, le tout solidifié par des chevilles de bois, aux faces vestibulaires postérieures sont des crampons d'or servant à retenir des ressorts. La base du dentier supérieur, dont les bords postérieurs sont recourbés pour tenir en place les ressorts, est d'or estampé, les dents sculptées comme celles du bas, en deux parties, sont rivées à la base par des clous d'or.

En plus de quelques dentiers d'ivoire, étaient exposés des dentiers en bois faits au Japon; la région des molaires en est protégée contre l'usure de la mastication par trois rangs de clous à larges têtes et les dents antérieures sont teintes en noir pour satisfaire à une mode orientale.

Le docteur Morris Mestel de Chappaqua, N.Y. exposait une collection unique de Sainte-Apolline. Cette collection comprend des originaux et des reproductions de peintures et de sculptures des écoles américaines, anglaises, espagnoles, françaises, italiennes et hollandaises du moyen-âge au temps moderne; des photographies d'églises, de couvents, de retables, de fonts baptismaux; des manuscrits, des breviaires, des livres d'heures, des prières et des chants, des poésies, des hymnes. etc.

La collection du docteur Mestel compte à l'heure actuelle, sept cent cinquante pièces différentes alors que ma collection n'en compte que trente-cinq.

En résumé, le dentiste, en parcourant cette salle, pouvait joindre l'utile à l'agréable: amateur d'art: des tableaux, des estampes, des gravures, des sculptures, des porcelaines, des médailles lui offraient un régal des yeux et de l'esprit; curieux des choses de l'histoire: de nombreux instruments et appareils anciens l'intéressaient; patient: il pouvait étudier les différentes statistiques; croyant: il n'avait qu'à invoquer Sainte-Apolline, notre patronne, devant les nombreuses reproductions exposées; bibliophile: les livres et les revues ne lui manquaient pas.

HOTEL LORD BALTIMORE—SALON FLORENTIN—MARDI, 19 MARS 1940

Au déjeuner servi aux bibliothécaires des écoles dentaires, le docteur George B. Denton, professeur d'histoire dentaire à l'Université Northwestern parla des premières bibliothèques: "Les bibliothèques dentaires, dit-il, sont nées au XIXe siècle, Le Chirurgien-Dentiste de Pierre Fauchard, édité en 1728, en fut le premier volume. Beaucoup plus tard les livres dentaires se multiplièrent sans que l'étudiant eût l'avantage d'en prendre connaissance à moins qu'il n'eût accès à une bibliothèque, propriété d'un dentiste plus instruit et studieux que ses confrères.

"On fut d'abord plus intéressé à publier des livres dentaires qu'à les conserver et ce n'est qu'en 1885 qu'on pensa à fonder la première bibliothèque dentaire grâce aux collections privées, achetées ou données."

Le docteur William J. Gies de la Fondation Carnagie et de l'Université Columbia, N.Y., fut l'orateur suivant, il dit:

"Les recherches dentaires sont des efforts conscients conduisant des ténèbres de l'ignorance à la lumière du savoir."

"Les bibliothèques doivent conduire le chercheur vers cette lumière en lui permettant un libre accès à ses rayons où il trouvera les renseignements relatifs à son travail et découvrira des sources souvent inconnues."

"Sans doute un travail de recherche ne peut avancer qu'à taton, une découverte conduira à une autre découverte, l'anneau de la chaîne absent sera trouvé en cherchant d'une fiche à un catalogue, d'un index à un autre index, d'un journal à une publication pour enfin arriver au renseignement désiré."

"Dans la majorité des cas le bibliothécaire, sans nécessairement avoir une connaissance technique du sujet étudié, pourra prêter sa collaboration par sa seule science des relations des livres, des brochures et des journaux avec le résultat que des heures de travail seront sauvées et souvent des renseignements importants seront trouvés."

Mademoiselle Joséphine P. Hunt de Chicago, bibliothécaire de l'American Dental Association, termina la série des conférences en parlant des changements apportés à l'index des journaux dentaires.

Des quatre coins des Amériques et de l'Europe étaient accourus plus de six mille dentistes pour célébrer ce centenaire. Le docteur F. M. Dimas-Aruti, au nom de la plus vieille Université d'Amérique, l'Université de San-Domingue, et le docteur José R. Quiroga, chef du corps dentaire de l'armée bolivienne, au nom de le république de la Bolivie, présentèrent des plaques commémoratives devant rappeler aux générations futures ce grand événement.

BALTIMORE, MD., MERCREDI, 20 MARS 1940

Le congrès nous a rappelé le passé, il a traité du présent et il a discuté du futur de notre profession. On nous a montré toutes les difficultés vaincues durant un siècle par nos prédécesseurs. De métier de barbier, exercé par les empiriques et les charletans, les dentistes sont graduellement devenus des hommes de science reconnus et estimés par tous. Si en 1825, l'Université de Maryland se croyait obligé de refuser à Horace Hayden l'affiliation d'un collège dentaire, cette même Université, en présence de cent vingt-huit professeurs universitaires et trente-huit doyens revêtus de la toge, donnait, ce matin, aux docteurs Harvey J. Burkhart, William J. Gies, Arthur H. Merritt le degré honoris causa de docteur ès science pour les services rendus à la science dentaire. L'avenir s'annonce plein d'espérance à la condition que l'enseignement continue à progresser: pour celà, la formation scientifique des professeurs et des étudiants devra de plus en plus l'emporter sur la formation mécanique enseignée dans les années passées.

2043 rue Saint-Denis, Montréal.

Haida Poles at Skidegate, Queen Charlotte Islands, B.C. — By Courtesy of The Beaver, Hudson's Bay Company.

ARTHUR L. WALSH, D.D.S., F.A.C.D.

Montreal, Quebec.

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Dean of the Faculty of Dentistry, McGill University.
President-elect of the American Association of Dental Schools.
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Chairman of the Children's Dental Committee of the Junior Red Cross.
Member of the Board of Directors of the University Settlement.
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Fellow of the American College of Dentists.

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Gold Foil and Its Importance in Operative Dentistry *

by DOUGLAS J. SUTHERLAND, D.M.D., Vancouver, British Columbia

GOLD foil used as a filling material is one of the oldest methods of filling cavities in teeth and it can be said that it is the only filling material that has stood the test of time. Today, in a world of rapidly changing events, new materials and methods of procedure are always present and it is to the credit of gold foil that it, and it alone, is used as the standard or measuring stick by which we judge all others. When the subject of gold foil is presented to the average group of dentists, sometimes one might feel that their reaction is very similar to the reaction of the average patient visiting a dental office. In other words, they don't take to it too kindly. Are we, as dentists, measuring up to the standards which the public has a right to expect from our profession? Let me give an excerpt from an article by Dr. M. M. House. "The true status of dentistry is a health service and truly professional dentists consider and practise it as such. There are many in our profession, however, who are interested in dentistry as a vocation only and they religiously and destructively practise it as such." The first group, or those sincerely interested in rendering a real health service, find to their ever increasing satisfaction that one of the ways to do this is through the medium of gold foil. It is not my intention to give a detailed description of the technique for making a gold foil restoration, rather to give some useful information in a general way regarding its indications, merits and place in modern dentistry. I also wish to emphasize that most of my information is not original but is compiled from the works of many great teachers including Drs. G. V. Black, C. N. Johnson, Waedelstadt, Searle, Prime, Ferrier and many others.

Dentistry, though the youngest of all professions, is outstanding in the progress that it has made. When we look back over its short history we cannot help but be impressed by the number of outstanding master minds that have prepared the groundwork of our profession. Sometimes we wonder whether the progress and advancement have been taken as a matter of course and have made us just a little too self-satisfied. Let us consider Dr. G. V. Black, the father of operative dentistry. In his work each detail was carried through to completion with exactness. Even his writings are so clear and explanatory that there can be no question regarding their meaning. He, among many others, proved definitely the

* Presented before the Vancouver Dental Society.

impossibility of making a perfect cavity preparation and filling without the absolute exclusion of moisture. Let us stop for a moment to think of the fillings we constantly see in teeth today, minus dental anatomy, marginal finish, contact points, and so on, and then we ask ourselves if operative dentistry—one of the most important factors in the prevention of oral disease—is hedging and evading the practice of those fundamental principles, many of which were established years ago. Gold foil is one material which will not permit such deviations and demands a rigid adherence to fundamental principles and a definite standardized technique. In other words, an operator skilled in the use of gold foil has a more rational outlook on other phases of operative dentistry and is generally more proficient because he has learned not to neglect the basic factors, which, of necessity, are demanded in good operative procedure.

Gold foil is not the answer to all operative problems. It has definite indications and certain contra-indications and, without exception, common sense and good judgment are essential in using it to achieve the highest degree of success. It fulfils the requisite essentials demanded of a filling material to a greater degree than any other material. As stated in one of Dr. W. I. Ferrier's articles, "It is the best known method of securing marginal adaptation to the cavity of a tooth and perhaps the only method of securing such adaptation with a material that is insoluble in the fluids of the oral cavity and that will remain unchanged in shape under the stress of mastication. It fulfils all the requirements of the ideal filling material with the exception of colour and ease of insertion." One cardinal point that cannot be over emphasized or stated too often is the fact that in the insertion of a gold foil restoration we may place the margins of our cavities in immune areas with less destruction of sound tooth structure than with any other restoration.

Indications for Use

The indications for the use of gold foil in restorative dentistry are many and varied; briefly, whenever incipient caries is present. This broad statement may be questioned by some, but it follows that the more proficient an operator becomes in the handling of gold foil the greater are the indications. It is a fair conclusion that, the greater the amount of tooth structure to be restored, the less is gold foil indicated; the less the amount of decay, the greater the indication. Gold foil is used in Classes 1, 2, 3 and 5 cavities. The ability and personal preference of the operator frequently designate the relative importance of the various classes. If it is fair to compare the importance of the various classes I suggest that in Class 3 and Class 5 cavities the indications are more apparent for the simple reason that in these two classes we find more failures of other filling materials. Sometimes I wonder if it is fair to class the commonly used silicous cement as a permanent filling material because certainly, if we are guided by the seven requirements of a permanent filling material as listed by Dr. G. V. Black, silicates fail to qualify in any one of the seven qualities. Yet, by using this material we often give the patient a temporary filling, whereas in most cases a gold foil restoration is definitely indicated. My reason for mentioning the use of silicates is that I feel that many dentists fail to appreciate the true indications for the use of gold foil and by so doing are undermining the very foundations of our profession. We are supplying the patient with temporary restorations which in turn cause serious damage, when we, with the means at our disposal, particularly gold foil, could render a service, which by virtue of its permanence, would elevate the public's

—*Photo by Krass Studio*

DOUGLAS J. SUTHERLAND

opinion of the services rendered by the dental profession. Let me assure you I am not suggesting that because a filling is made of gold foil that it necessarily follows that it is a good filling, because that is not true, and in discussing gold foil I am assuming that it is used by an operator possessing average ability and trained to produce a fine result. In considering the indications for the use of gold foil in Class 5 cavities, I feel that of all classes of cavities this one is more adapted to the use of gold foil than any other class. Gold foil is the only material with which one can satisfactorily fill a Class 5 cavity and accomplish a degree of permanence that, of necessity, is demanded. A baked porcelain inlay is the only other material that comes even within the range of gold foil and we of course know that it is cemented in place and no discussion is necessary regarding the dental cements. It is generally accepted that a properly inserted gold foil filling offers less irritation to the surrounding tissues than any other material known and, in the case of Class 5 cavities this is of paramount importance. The use of the cervical clamp designed by Dr. W. I. Ferrier has proven an extremely valuable aid in making better Class 5 gold foil fillings.

Virtues of Gold Foil

When we attempt to duplicate nature's handicraft by restoring lost tooth structure, we find that we have a standard set for us which is very high and in the majority of cases is far beyond our efforts. Hence it is our endeavour to find the very best methods and materials at our disposal to aid us in this difficult task. The merits of gold foil place it in the first rank as a filling material and in general the advantages far outnumber any so-called objections to its use. Dr. E. M. Jones has recently listed some of the virtues claimed for gold foil restorations.

"1. It is the most practical means of restoring tooth structure destroyed by initial caries.

2. In the majority of cases, the ad-

vantages far outnumber the many feeble and questionable aesthetic objections.

3. Tolerance of the oral tissues, in its essence insures a conservation of the remaining tooth structure.
4. There is a facility of access.
5. Strength and permanency are assured as against the weakness and insecurity of other materials.
6. An aesthetic quality is derived from the permanent nature of the restoration and its complete conformity to tooth structure."

In discussing the above list I would like to impress upon you the fact that particularly the aesthetic question is not one of serious importance as it is possible in cases, particularly of initial decay, to place the outline of the filling in such a manner that its aesthetic qualities are quite pleasing. During the last few years particular stress has been laid upon the outline form and it is a pleasure to report that it is the concensus of opinion that marked improvement has resulted.

Much of the success of gold foil can be attributed to the conditions under which it must be inserted. This refers particularly to the use of the rubber dam, the placing of which is an essential and obligatory step in a gold foil operation. The use of the rubber dam permits us to have as nearly a sterile field as it is possible to obtain. It permits an unimpaired view of the cavity as well as allowing us to secure perfect margins, good anatomical contour and the desired finish. The fact that it is possible to complete a gold foil restoration at one sitting, and, in the hands of an experienced operator, to do this in a reasonable length of time, is a desired advantage to both the patient and operator.

The trend of modern dentistry is not always to our liking, particularly in the operative field. Many dentists allow the mechanical laboratory to prescribe the service which they are going to render—a sad commentary on our professional training. Super-salesmanship and pieces of jewelry are the result and it is not to our credit that this is so. Many of the above evils are caused by the dentist failing to do his own thinking and being swayed by big business, which in reality, controls most of our mechanical laboratories. Such being the case, the dentist who uses gold foil in his practice finds that it is a splendid tonic for his operative skill and, following the scientific techniques of cavity preparation and the insertion of gold foil, will be loathe in turn to trifle with the many inaccuracies which are found in modern restorative agents.

In closing I would like to read a quotation from a paper given by Dr. Geo. Hollenback. "A very large percentage of the men who, in the past, have made dental history and those who are making it today have been and are skilled foil operators. There are few, if any, radicals in their ranks. In fact, they perhaps constitute the safest, sanest, and most conservative group in the profession."

Suggested additional reading material for those interested in Gold Foil and its importance in Operative Dentistry:

W. I. Ferrier—Indications For Gold Foil Operations. Pacific Dental Gazette, March 1927.

W. I. Ferrier—Treatment of Cavities in the Anterior Teeth and Pit and Fissure Cavities in the Posterior Teeth With Gold Foil. J.A.D.A., March 1936.

E. M. Jones—Treatment of Initial Caries in the Anterior Teeth With Gold Foil. J.A.D.A., April 1939.

G. N. Hollenback—The Gold Foil Study Club. J.A.D.A., September 1933.

J. M. Prime—Inconsistencies in Operative Dentistry. J.A.D.A., January 1937.

J. M. Prime—Is Operative Dentistry Failing?—J.A.D.A., January 1936.

Earl D. Harrison — Importance of Gold Foil to the General Practitioner. J.A.D.A., October 1935.

R. R. Byrnes—Why Fillings Fail. J.A.D.A., December 1934.

1503 Medical-Dental Building.

*Report of the Canadian Dental Corps Committee of the Canadian Dental Association**

AT THE last meeting of the Canadian Dental Association held in Vancouver in 1938 a report of this committee was presented by Colonel Lott which was duly accepted and approved by the Board of Delegates of this Association. The same Committee was reappointed and has carried on until the present date.

Colonel Lott's comprehensive report formed the basis on which this Committee worked and without it very little, if any, progress could have been made. It is of momentous interest and satisfaction to the profession that military authorities have since spoken so highly of the painstaking care and detail shown by Colonel Lott in his report. The keen imagination and organizing ability shown, both from a military and professional aspect were recognized at once.

From the above mentioned data the Committee intensified its endeavours to establish a Dental Corps and achieved its object on the outbreak of hostilities. While we do not feel that the ideal has been achieved, we think we have met with considerable success. I hope you all realize that governments are difficult to deal with, especially in the matter of spending money in times of peace. If the war had not been precipitated quite so soon, it is my belief that we could have persuaded the Government to establish a fund which would have enabled us to experiment with kits, training, etc.

As soon as possible after its reappointment the Committee had a meeting with the Hon. Minister of National Defence and his Deputy. The point stressed at this meeting was the need for a corps and one entirely separate and responsible directly to the Adjutant-General. The reception accorded this point of view as presented by Dr. Moore was courteous and sympathetic but non-committal. The Hon. Minister had, no doubt, looked carefully into Dr. Lott's first report and from a military viewpoint understood the significance of our requests. He very kindly made an appointment with General Constantine, the Adjutant-General, Col. Potter, the Director of Medical Services and Col. Archambault, the Deputy-Adjutant - General. At this interview General Constantine grasped the full significance of our problem and we felt that he could and would present it to the proper authorities in the most sympathetic manner.

Time must elapse for the machinery of these departments to be set in action. As the opportunity arose, I made it a point to call personally on Col. Archambault and General Matthews who succeeded General Constantine. Eventually we succeeded in arranging a meeting of a departmental committee composed of General Matthews, Col. Archambault and Col. Sansom to meet a delegation composed of Dr. Moore, Col. Lott and myself. These officers were kind enough to give us an entire day of their time and much work was accomplished. As you all probably know, that unlike the last war, our Military authorities were trying to organize our army in an exactly similar manner to that of the British Army. They were forming establishments that could

* Presented to the Delegates Meeting of the C.D.A., Toronto, May, 1940.

readily tie into the British ones immediately our Army went into the field. This raised a most difficult problem for us and I am not sure if it has been quite solved yet. The British army has three dentists per Division and we know very definitely that this is inadequate. It is not hard to sympathize with the Department's views on this point. They are professional soldiers but to dentistry they are laymen. They had thought that the British army with its vast experience in war and peace should know what was needed to keep an army fit. They naturally found it difficult to understand the difference in standards of dentistry between the two countries. They also did not see that our system of dental education is entirely divorced from medical education, and therefore, to their way of thinking, we should come under the R.C.A.M.C. for administration. It took all the tact and persuasive powers of our Committee to direct their thoughts to our point of view. Col. Lott's able and persuasive presentation of facts, figures and statistics, gained from much thought and careful study, finally bore fruit. As I mentioned in the beginning of this report, we did not attain the ideal but we did get a much better compromise than we expected when this meeting opened. The set-up now places us under the Director-General of Medical Services in so far as the health of the troops is concerned but directly responsible to the Adjutant-General in all matters of organization and administration. We also fought hard to get the title of Director for the head of our Corps. On this the departmental committee was adamant. The title we did obtain at that time for the Senior Officer of the Corps was Officer Administering the Dental Services. Since then our attitude has been vindicated for the title "Director of Dental Services," has been granted. We succeeded also in getting a fair establishment laid down for times of peace in the Non-Permanent Active Militia and one that was elastic enough to be corrected as occasion arose. This establishment was drawn up so that it could be increased by multiples on the outbreak of war. The Permanent Militia was discussed and left in abeyance for the time being. Of course, the whole plan had to be brought before the National Defence Council by this departmental committee.

The day before war broke out Col. Archambault informed me that the establishment had been passed. War then was almost assured and I made an appointment with him for the following evening. I was able to contact Dr. Moore in Halifax, and by straining every effort he succeeded in reaching Ottawa in time for the meeting. This was the day Great Britain declared war. The object of this emergency appointment was to obtain an assurance that a dental corps would be mobilized and on the plans agreed to at the previous meetings. The co-operation afforded us and the quick action taken by Col. Archambault were most gratifying. No better evidence of the importance of a democratic government and of the value of a national organization such as the Canadian Dental Association could be seen than the events of these meetings. Our Committee had always held the view that inasmuch as the Canadian Dental Corps represents the profession of dentistry in Canada then the Canadian Dental Association should act in an advisory capacity as regards the personnel of this unit. We feel that this objective was achieved.

On behalf of the other members of the Committee I want to express our appreciation of the time and courteous reception given us by the military authorities already named.

Now that the Canadian Dental Corps is established and on a basis of which we are all proud, the work of this committee

is not completed. It still has a job of considerable magnitude on its hands and I hope it will grapple with the situation. We are in a life and death struggle and although not one of us has any doubt as to the final outcome, yet it may take years before a conclusive victory is achieved. The signing of peace will be the starting point of a new struggle for many of us. In a great number of cases "the hopes men set their hearts upon turn ashes". Wrecked bodies, minds and souls will be with us. There is no immunity for the Dental Corps. This Committee should commence now to develop some plan, to evolve some formula to help those that need help over the hurdle that has been raised in their lives.

The dentists overseas will not have a practice to which they can return. Some of them are not able to live on army pay and their savings will, in the course of time, be depleted. Age and numerous other things will handicap their re-establishment. This committee should concern itself with this problem. Dental appointments, Municipal, Provincial and Federal are being made from time to time. Could this Committee arrange that such appointments be of a temporary nature for the duration only and, all things being equal, could returned officers be given preference in making such appointments later?

Then there is the question of those who desire to return to Canada after a term of service. This would appeal especially to men with families and men with highly specialized training. I would be the last one to interfere with the successful prosecution of this war in any way but this matter deserves some consideration. Its ultimate disposition depends entirely on Headquarters.

A study should be made of the problem both as to dental service for the army and for the civilian population. A balance in this field is necessary for the future of dentistry in Canada.

This Committee should also look into the facilities for treating returned men in civil hospitals. I understand this is outside the jurisdiction of the Department of Defence and comes under the Department of National Health.

The status of dentistry and dentists in the three services is still the concern of the Canadian Dental Association. An alive and actively functioning committee could be of inestimable value to the Director of the Corps in his efforts to maintain a high standard of dentistry and proper recognition of the profession in the Forces.

These are only a few suggestions. No doubt many more problems would present themselves on discussion.

I cannot close this report without expressing my sincere thanks and appreciation to the rest of the Committee. Their help, constructive ideas and patience have always been an inspiration to me. The achievement would not have been possible without them.

A great debt of gratitude is owing to Dr. Stephen A. Moore, President of the Canadian Dental Association. At no time did he hesitate to sacrifice his own interests for those of this cause. I had only to say, "Come to Ottawa", and he was there. Time and expense did not matter even if the question at hand was a minor detail. There was never a question of kudos or personal gain. His aim has been for unanimity to prevail in the profession and that the establishment of a Dental Corps should be the product of the Dominion-wide organization, namely, the Canadian Dental Association.

(SIGNED) IRA W. HAMILTON,

Ira W. Hamilton, Major, C.D.C.,

Chairman,

Canadian Dental Corps Committee.

*Summary of Report of the Special Advisory Committee of the Canadian Dental Association**

THE preparation of a plan for the attainment of an enlarged sphere of usefulness for the Association was the special assignment of the Advisory Committee appointed by your President. The following motions which have been endorsed by the Committee are recommended for your serious consideration.

"That this committee recommends to the Board of Delegates that provincial representation to the Board of Delegates be on the basis of one delegate for each province, and where there are more than five hundred licentiates in good standing in a province, such province shall be entitled to an additional delegate for each additional unit of five hundred members in good standing or major fraction thereof, and that payment for expenses be made to all delegates attending the regular meeting." It is suggested that an annual meeting with a scientific program be instituted as soon as finances will permit, with the thought in mind that the Canadian Dental Association co-operates with the provincial organization in the province in which the meeting is to be held.

"That this committee recommends to the Board of Delegates that the provincial licensing body in each province be asked to contribute annually to the Association a four dollar membership fee for each licentiate in good standing in that province."

Effective assistance by the Canadian Dental Association to the profession throughout Canada can only be extended when the National Association can afford to pay the salary and expenses of a competent full-time secretary and other officers. A number of the provincial legal bodies are keenly aware of the potential value of the Canadian Dental Association and they have gone on record that they are prepared to increase the fee paid to the National Association to four or five dollars for each member in good standing if the other provinces will co-operate. When all the provinces have taken this forward step, the comprehensive plan which follows may be initiated.

Proposed Plan for an Adequate and Efficient Canadian Dental Association

To increase the value of the Canadian Dental Association by a strong, effective, national body

1. By increasing its value to the individual dentist.
2. By protecting the interests of the profession.
3. By safeguarding the dental welfare of the public.

To Put Proposed Plan into Effect

1. Appointment of a combined full-time Secretary-treasurer of the Canadian Dental Association and Business Manager of the Journal.
2. Competent stenographic assistance.
3. Establishment of Association Headquarters in Toronto.
4. Remuneration for Editorial Staff of Journal.
5. Payment of travelling expenses of officers and all provincial delegates.
6. Adequate financial support of Committees.
7. Reserve fund for emergencies.

* Presented to the Delegates Meeting of the C.D.A., Toronto, 1940.

8. Payment to the Canadian Dental Association by the Legal body in each Province of an annual membership fee of $4.00 for each licentiate in good standing in that Province.

(Signed) C. H. M. WILLIAMS,
Chairman.

Summary of the Report of the Journal Committee 1939-1940 *

IN 1938 at the Vancouver meeting of the Association, the Board of Delegates authorized the President, Dr. Moore, in consultation with the Editor, Dr. Garvin, to appoint a Journal Committee and approved the addition of the following paragraph to the By-laws of the Association:

"The management and control of the Journal shall be vested in a Journal Committee appointed by the Board of Delegates and subject to the directions given from time to time by the Board of Delegates. The Committee shall appoint an editor, or editors, also business manager and any other officers that may be required to carry on the work of publishing the Journal and shall determine the nature and scope of the duties and the remuneration of these officers. The Journal Committee and all members of the Staff of the Journal shall be subject to the Board of Delegates."

Since its appointment, the Committee has acted in an advisory capacity to the Executive officers of the Journal Staff (the Editor-in-Chief, the Editor of the French Section and Business Manager) and has performed a service similar to that of the Board of Directors of a business organization. In this connection it might be appropriate to mention that copies of audited statements have been received by the Committee from both the Editor-in-Chief, Dr. Garvin, and the Business Manager.

Closer association with the Executive officers of the Journal Staff has impressed the members of the Journal Committee with the tremendous amount of time and effort that the Editors, Dr. M. H. Garvin and Dr. Thibaudeau and the Business Manager, Dr. Stephen A. Moore and the other members of the Editorial Staff have contributed towards the improvement of our Journal. In addition, the encouragement and active assistance given by Mrs. Garvin to the Editor is a service of special value for which the Committee considers the Association deeply indebted.

This report would be incomplete without an expression of appreciation of the continued support of our advertisers. Furthermore, the co-operation of the publishers, The Consolidated Press, has made possible a high standard of journalism.

STAFF CHANGES

Since the appointment of the Committee in October, 1938, due principally to the war, a number of changes have been made in the Journal Staff, and also in the Journal Committee. Dr. J. Edgecombe, Provincial Editor for New Brunswick and Dr. Eric Saunders, Provincial Editor for Quebec, were called up for military duty. Upon the recommendation

* Presented to the Delegates Meeting of the C.D.A., Toronto, May, 1940.

of Dr. MacDonald, New Brunswick Delegate, Dr. Harry Peters was appointed successor to Dr. Edgecombe, and Dr. E. M. Laurin was appointed by the Board of Dental Surgery of the Province of Quebec to succeed Dr. Saunders. Early last Spring, death removed our Empire correspondent, Mr. J. Lewis Payne, whose duties have been ably assumed by Mr. Bryan J. Wood. Dr. Gerald Franklin of Montreal, a member of the Journal Committee, was accepted for military service and Dr. C. H. M. Williams, Toronto, was appointed in his place. The fact that two members of our Committee are now resident in one city affords an opportunity for more frequent discussion of our problems. Due to ill-health, Dr. Ernest Charron, the third member of the Journal Committee, has been forced to resign recently and Dr. Armand Fortier has been appointed to fill the vacancy.

Recommendations—re Salaries

Your Committee recommends that a suitable honorarium be given to the Editor-in-Chief, the Editor of the French Section, the Provincial Editors, and the Business Manager in recognition of their past services and the Committee further recommends that annual salaries be paid to the members of the Editorial Staff. This action is impossible unless the appropriation of the Journal Committee is substantially increased.

Dental Journalism in Canada was threatened with unwarranted competition, when in October, 1939, the publishers of an American proprietary journal decided to include the dentists of Canada with all other English speaking dentists in an effort to increase circulation. Our President, Dr. Moore, made a special trip to Ottawa to interview the government authorities. Later, in Montreal, he also discussed the matter with the Editor of the Journal of the Canadian Medical Association. Dr. Garvin, our Editor-in-Chief, also took the matter up directly with Dr. Elmer Best, editor of this Journal, and finally the publishers decided to withdraw from the Canadian dental field. In this undertaking we were strongly supported by the Dental Manufacturers and Dealers whose interests were also affected, as it would have been necessary for them to duplicate lines of inferior quality products, advertised in this American proprietary magazine. Such merchandise is not acceptable for advertising in the pages of the Journal of the Canadian Dental Association. This co-operation on the part of the Dental Manufacturers and Dealers in so effectively assisting us to prevent further intrusion into the field of Canadian Dental Journalism is appreciated by your Committee.

By this united action the most important link between Canadian National Dental unity, (the Journal) and the individual dentist has been more strongly welded. It is the hope of your Committee that the Journal of the Canadian Dental Association shall continue to be worthy of the support of every Canadian dentist; that it may ever bring to every dentist in Canada, particularly those in the outposts of our Dominion, a message of inspiration and enthusiasm.

(Signed) G. V. Fisk,
Chairman.

Editor's Note: *A number of the Reports which appear in this issue of the Journal have been condensed on account of space limitations.*

*Report of the Committee on Dental Education of the Canadian Dental Association**

ADVANCEMENT and leadership in dental education must, for the most part, be initiated by those connected with dental schools. Teachers who devote their time to the training of students, and whose thought is absorbed in teaching methods and in the content of the courses, are naturally qualified to suggest improvements in the curriculum. It should be kept in mind, however, that much help can be given by practitioners of dentistry who will always be a guide to the type of service which is to be rendered to the patient. Comments on the reports of this committee should, therefore, be of special assistance to dental educationists, and should be a means of giving direction to provincial boards throughout Canada. In this way adequate minimum standards could be maintained and the best dental service be made available to the Canadian people. The visionaries in dentistry who founded the Dominion Dental Council must have had this thought uppermost in their minds and it would seem reasonable that the Canadian Dental Association might well support this body in its endeavours to unify the standards throughout this extensive country.

The report issued by the Committee on the Survey of the Dental Curriculum of the American Association of Dental Schools has borne fruit and raised the standard of dental education in the teaching institutions on this continent. An earlier survey of Dental Education in the United States and Canada by the Carnegie Foundation was effective in influencing dental schools to become faculties of universities, if they were not at that time an integral part of a university.

If dentists are to have a true professional outlook, their education must be based on broad biological principles and the teaching of technical procedures must be based on a thorough understanding of the fundamental principles of the engineering sciences. Further, the best services in dentistry must include a high degree of efficiency and delicate discernment in the field of art. Students of dentistry should have a keen appreciation of the value of aesthetics. Their artistic knowledge can be applied in every day life to a maximum degree to the dental needs of the patient.

If such is the goal to be attained in dental education, it might be well to study the aims and purposes of the Council of Dental Education of the American Dental Association. This Council is composed of representatives from the American Dental Association, the American Association of Dental Schools and the National Association of Dental Examiners.

The aims and purposes adopted by the Council on Dental Education are as follows:

a. To correlate in accord with the evolution of scientific knowledge, clinical experience, and social and economic conditions—the procedures of dental education with the problems involved in meeting oral health needs —and to interpret the relations of

* Presented to Delegates Meeting of C.D.A., Toronto, 1940.

dental education to the dental profession and to the public.

b. To organize and administer criteria for accreditment of institutions for the study of dentistry in the United States. This will include consideration of:
   (1) *predental* education, and requirements for admission to dental schools;
   (2) *undergraduate* dental education, and requirements for the D.D.S. or D.M.D. degree of dental schools;
   (3) *graduate* and post graduate education in dentistry and requirements for the accreditation of specialists in dental practice; and
   (4) *such other* educational activities as may come within the Council's jurisdiction.

c. To list recurrently for publication the acceptable agencies of dental education, in a manner to give the dental profession and the public authoritative information.

d. To facilitate effective co-ordination of the efforts of dental schools, dental state boards, and dental societies toward maintenance of adequate standards of professional proficiency.

e. To promote more complete understanding—in universities, in medical schools, and by the public—of the current needs of progressive dental education and dental research in the public interest, and to stimulate the continual development of dental education.

f. To inform the dental profession regarding the nature and scope of the current problems of dental education, and of the conditions and procedures for their solution.

g. To foster constant improvement in the methods of teaching in dental schools, and to encourage the establishment of conditions that would attract an increasing number of men of outstanding ability to the career of dental teaching.

h. To study the educational needs of the practitioner and to recommend ways and means by which he may be provided with opportunities for organized study to maintain proficiency.

These suggestions are a splendid guide to dental organizations interested in dental education and should be given considerable thought.

Let us now give some consideration to the standards of education for admission to the study of dentistry in Canada. Each of the provinces retains control of educational standards and every effort should be made to keep these standards, if not uniform, at least of equivalent values. It is unfortunate when a student, because of some local condition is not able to meet the exact educational requirement prescribed for entrance to the study of dentistry in another province but who at the same time may possess standing in different subjects which can be considered of equivalent educational value.

Departments of Education of the various provincial governments hold examinations for admission to university. These requirements are, on the whole, of equal value, or could be made so, and it would seem that dental licensing bodies should accept equivalents as between these Departments of Education.

High School curricula and admission requirements to universities are at the present time in a state of flux in some provinces. The trend seems to be toward making a curriculum so that a student may postpone the age of choosing a career, while at the same time receiving a liberal education of a standard which could be accepted by various faculties.

In Ontario the tendency is to have

more elective subjects, up to Pass or Junior Matriculation standard, particularly; the Department of Education of the Ontario government has discontinued conducting examinations for this grade and in the future, will hold them only for Honour or Senior Matriculation standing.

Changes in requirements for admission into the different faculties of the University of Toronto are now under consideration by the Matriculation Committee of the University Senate.

The Faculties of Medicine and Dentistry have recommended the same requirements for admission. The Council of the Faculty of Dentistry has passed the following resolution and it has been submitted to the Matriculation Committee of the University Senate for further consideration:

That, commencing session 1941-42, a candidate for admission to the First Year in the Faculty of Dentistry be required to present the following certificates:

(a) The Ontario Secondary School Graduation Diploma awarded upon the completion of Grade XII in the General and Academic courses, (formerly Pass or Junior Matriculation grade, or Middle School standing).

(b) A certificate or certificates issued by the Department of education of Ontario showing that the candidate has passed the Grade XIII examinations in the following subjects of the General and Academic courses; (formerly Honour or Senior Matriculation grade, or Upper School standing); English, Mathematics (two of Algebra, Geometry, Trigonometry), Science (two of Physics, Chemistry, Botany, Zoology), One of French, Latin, German, Greek, Italian, or Spanish, One of: two science papers not chosen elsewhere, a mathematical paper not chosen elsewhere, a second foreign language, History, or Music.

As it is essential that the matriculation requirements of this Faculty be acceptable to the Royal College of Dental Surgeons of Ontario for all dental students who desire to obtain a license to practice Dentistry in Ontario, this resolution has also been submitted to its Board of Directors for consideration.

The science of dentistry has advanced so rapidly in the last decade that without constant refresher courses one cannot keep abreast of the latest thought. The dental colleges in Canada have been fully aware of their responsibility and have made every endeavour to meet the needs of the profession.

The Faculty of Dentistry of the University of Toronto, has arranged refresher and post-graduate courses intramurally from time to time. Graduates may attend short refresher courses of one week's duration or for a longer period according to their wishes at almost any time during the academic year. Organized courses for groups would be planned on request in any particular subject.

Faculty members at Toronto are giving generously of their time to help the various associations at conventions as well as co-operating with the Royal College of Dental Surgeons in giving extramural instruction.

Teaching and research are very closely related. Graduates who are interested in research may arrange for attendance at the Faculty of Dentistry, University of Toronto, for the purpose of studies and research work which will lead to the following degrees: B.Sc. (Dent.); M.Sc. (Dent.) and Ph.D.

In Canada money required for research is very limited. This association might possibly be a means of stimulating the interest of the public to donate adequate

funds for this purpose. Members of the Associations might also suggest problems for dental research.

Research should be undertaken on a sound conservative basis, with adequate preliminary knowledge. Time is an important factor in investigating unsolved problems and I feel that a word of warning might well be given as to the too hurried reporting of research findings. It is a mistake to always expect spectacular results which have an immediate practical application. Findings of research should be amply verified, not only in the academic but also in the clinical field.

(*Signed*) ARNOLD D. MASON,
Chairman.

Report of Public Relations Committee of the Canadian Dental Association 1938-1940 *

THE Public Relations Committee of C.D.A. was created at the meeting of the House of Delegates in Vancouver in July 1938.

This Committee is a successor to the "State Dentistry" Committee. The personnel for the term 1938-1940 is as follows:

Chairman, Dr. J. S. Lapp.

Central Committee

J. A. Boyd—Stratford
F. J. Conboy—Toronto
J. C. Devitt—Bowmanville
E. A. Grant—Toronto
E. T. Guest—Toronto
E. C. Veitch—Toronto

Provincial Representatives

E. Fraser Allen—Vancouver, B.C.
F. Boyoner—St. John, N.B.
R. R. Dalgleish—Sydney, N.S.
H. Johnston—Moose Jaw, Sask.
C. M. Fletcher—Lethbridge, Alta.
A. McMurdo—Summerside, P.E.I.
H. J. Merkeley—Winnipeg, Man.
J. C. Flanagan—Montreal, Que.

During the summer and fall of 1938 copies of the submission to the Royal Commission on Dominion-Provincial relations were mailed to libraries and individuals who had requested them.

In October 1938 a questionnaire was sent through the provincial members regarding industrial dentistry. From the answers received it was apparent, at that time, that very little attention had been given this matter by organized dentistry in Canada.

In Ontario one steel industry and one food company were reported to have a working arrangement with a dentist but details were not reported.

In 1939 a dentist from an Ontario town came before the Board of the Royal College of Dental Surgeons with a proposed industrial contract for approval. It was deemed unsatisfactory in the form presented and did not receive the approval of the Board. The matter was apparently dropped.

In Saskatchewan in 1939 the Saskatchewan Dental Assn. received a proposed agreement by a municipality to employ a dentist under the municipalities act. This was referred to the Public Relations Committee for guidance.

A sub-committee was formed under chairmanship of Dr. E. C. Veitch to give

* Presented at the Delegates Meeting of the C.D.A., Toronto, May, 1940.

full consideration to the whole matter of industrial dentistry with a view to formulating a policy so that this committee could properly advise the Saskatchewan Assn. or others seeking advice.

A meeting was recently arranged with the Canadian Dental Hygiene Council to which were invited Mr. R. M. Morley, general manager, Industrial Accident Prevention Assn., and Mr. H. G. Fester, general manager, Ontario Safety League, for the purpose of open discussion on the matter of dental services to industrial workers.

At the moment the whole matter of supplying services to industrial workers and municipalities is being studied by the sub-committee. Their findings have not yet been completed.

Summaries of many plans for providing dental services for industrial workers in U.S.A. have been procured also some proposed plans for voluntary dental health insurance in U.S.A.

A report of the technical committee on medical care of the interdepartment committee to co-ordinate health and welfare activities in U.S.A. has been received.

In October 1938 a communication was received from Mr. G. Hoadley regarding information for a health survey under the auspices of the Canadian National Committee for Mental Hygiene. After careful consideration the information sought was arranged by telephone through a commercial House.

The chairman of the Public Relations Committee was appointed to the Board of the Canadian Dental Hygiene Council as the representative of the Canadian Dental Assn. in November 1939.

This committee has had a few occasions to communicate with the Public Press regarding published articles. Letters were written to "LIFE" and "LOOK" magazines and to the "Globe and Mail" with satisfactory results. One tabloid article came under consideration but the circumstances were such that your committee decided to take no action.

In April 1939 this committee prepared an address of welcome and loyalty to be presented to the King and Queen on the occasion of their visit to Canada. This was forwarded to the under secretary of State at Ottawa for presentation.

In connection with this, a seal was designed and purchased for the Canadian Dental Assn.

A study of the trend toward Social Legislation in Canada for the past ten years has been made by this committee. A report is now being prepared in chronological sequence for the various provinces, also for all Canada. This will shortly be completed.

Arrangements have been made to have access to the report of the Royal Commission on Dominion-Provincial relations which has just been tabled in Ottawa. It is felt that the portion relating to health should be closely studied immediately.

In February 1940 this committee proposed that the Canadian dentists observe the centennial of dentistry as a profession. Instructions were received to proceed with arrangements. Accordingly a Canadian Dental Centennial Committee was formed. This committee has completed arrangements for the Canadian observances. Addresses suitable for service clubs, etc., have been prepared and sent to provincial associations, also copies of a chronological table of one hundred years of dentistry, sufficient for presentation to all dentists attending dinners and luncheons.

Publicity has been arranged for, also a broadcast over C.B.C. national net-work by Dr. Moore, President of the Canadian Dental Assn., on Monday, May 27, at 10.30 to 10.45 E.D.S.T.

Arrangements for the Centennial joint luncheon with the O.D.A. for May 27 have been completed. This committee

has expressed its appreciation to the Ontario Dental Assn. for the invitation to take charge of the joint centennial luncheon on Monday, May 27.

(Signed) JOHN S. LAPP,
Chairman.

*Report of the Research Committee of the Canadian Dental Association**

AFTER being appointed chairman of the Research Committee of the Canadian Dental Association, I endeavoured to have a committee formed of men who understood research and who were not likely to sanction any work which, on the face of it, could not be successful in producing anything of value.

We started with the members of the old research committee, but who had not been active because of the unfortunate loss through death of their chairman, Dr. R. J. Reade. Those men were Dr. F. J. Conboy, Dr. Arthur Ellis, Dr. F. Husband and myself. We added to them men who were, in one way or another, connected with research. I also wrote every delegate of every province in Canada the following letter . . . .

"Dear Doctor: Do you know anybody in your province who takes an interest in research, and knows research men in that province? Such a one need not necessarily be a research man himself. If so, I would like to get in touch with him. He would probably like to be a member of the research committee. We have the committee working in Toronto, but I believe it would be advantageous to have men in every province take an interest in it."

Every province, except one, replied and suggested somebody to represent the province if they had such a man.

In a number of provinces there is no interest being taken in research and no man they could recommend, but in each case, they said they would be on the lookout and would communicate with us if conditions changed. Your committee is now composed of your Ontario representatives, which acted as an executive, and representatives of each province where such a representative was possible.

Your committee has had eleven meetings which have been held in Hart House, and has considered a great many suggested problems for research, but found very few problems which it considered wise to undertake.

There is, however, material undeveloped or partly developed, which, with proper financial support, would make the foundation for splendid research.

We chose two apparently most likely pieces of research, one under the direction of Dr. Wallace Graham, and one under the direction of Dr. Harris, but Dr. Graham's assistant was called on active service and Dr. Harris, almost before he got started, was taken ill, and is still ill.

We studied another project in connection with the Theses which have been completed for certain degrees in the Dental College, and that, I think, will be carried on by your research committee in the future, but it will require some money for the necessary clerical work.

We have available the money from the Wm. Gies Memorial Fund, if we live up

* Presented at the Delegates Meeting of the C.D.A., Toronto, May, 1940.

to its specifications, consequently, Dr. Mason, Dean of the Dental Faculty of the University of Toronto, endeavoured to make use of that fund, but up to the present time, has not been able to get a man or men whom he could place.

We wrote to all the different universities in Canada suggesting to them that we would be glad to help if they had a problem they wanted to develop or investigate We received several fine answers desiring to co-operate with us, but up to the present no definite proposition has been received. Of course, the idea is new to the universities and will take a little time to develop properly.

We arranged for research work with Dr. Sugar, on "Cleft Palate", but he was not able to continue it on account of the war.

A number of dentists have written saying they were willing to work if we would give them a problem; that is a good sign and may lead to something, and we have carefully considered each case.

In one or two cases the members of your committee personally investigated the applicants for assistance in research and could not reasonably recommend them, because they did not think it possible for them to succeed with the amount of assistance we could give them, or for other reasons.

For instance, one man has a problem that he thinks he can solve by using pigs as experimental material. Something along this line may be feasible at a future time.

There have been many letters sent to your committee by members of the profession which we have acted upon. Some of them might be of interest to you had we time to discuss them.

However, I will just use one because I feel compelled to draw your attention to what I consider a most timely and necessary research as suggested and started by Dr. Wallace Graham, therefore, I am going to read you his letter as follows—

"Dear Doctor: I am sending along two rather pressing problems of dental research which I would like to discuss much more fully later. (1) There is still much to be learned about the relation of dental to systemic disease. Diabetes lends itself to this problem because there is a definite measure of the diabetic state—i.e. blood sugar and urine analysis. The diabetic is prone to infections of all kinds including involvement of the gums where periodontal disease appears to spread much more rapidly than in the healthy individual. (a) A study should be made of the effect of diabetes on the gums and teeth comparing the results with the general population. (b) The effect of treatment of such gums and teeth on the diabetic state—as it is well known that when infection is removed carbohydrate tolerance improves. This has not been done in relation to mouth infection. Some of the diabetic population are also on low sugar diets which would give interesting data on the effect of low carbohydrate diets on the dental state. (2) As Dr. Mason mentioned at the last meeting I think the problem of apical granulomata should be investigated. Many dentists and medical men seem to concentrate on the apices of teeth, particularly in x-rays when actually the gum condition may be more important. A complete pathological study should be made of apical granulomata to determine their pathogenicity re toxic absorption, presence of bacteria, are they healed lesions, etc." . . .

Your committee spent a great deal of time formulating governing qualifications for those desiring to do research work and I am submitting a copy as follows:

1. What special training in basic sciences have you had relative to the problem?

2. What is your justification for the investigation?
3. What method will you follow? Give detailed description of procedure.
4. State approximate length of time required for the study. What portion of your time do you intend to devote to this study?
5. Approximate cost?
6. Name proposed list of advisors.
7. Where is work to be done?
8. Candidates will be required to show a knowledge of existing literature.
9. Problem may be changed after two months, with approval of advisors.
10. New problem must be approved by research committee.
11. Progress reports once a year.
12. All appointments for one year only.
13. Renewal is subject to approval of committee.

The Committee considered the possibility of establishing facilities for the investigation of dental materials. It was agreed that such a project was beyond the means of a society comprised of less than 5000 members. However, the Committee felt that it would be desirable if excerpts of articles on research from the American Journals were published in the Journal of the Canadian Dental Association.

Now gentlemen in closing allow me to thank you for the confidence you have placed in me. I want to thank the members of the committee who have been so willing to sacrifice their time and their talents in the work of this committee, and I can assure you not one of them shirked his duty in any task which the committee asked him to perform.

There is, as you see, a great deal of work to be done along this line of endeavour, but at the present time the condition of world affairs has made it, and will make it very difficult to achieve what your association would like us to accomplish.

I have been very happy in this work, particularly in my association with the other members of the committee who cer tainly have been an inspiration to a man My term of office finishes with this meeting and I will be glad to help, if help is needed, to get a man to occupy the place I have endeavoured to fill the last couple of years.

(Signed) ANDREW J. MCDONAGH,
Chairman.

*Summary of Report of Insurance Examination Committee**

AN approach to the subject of dental examination of all applicants for insurance policies was made by the Committee because of the interest which insurance companies have consistently shown in dental health education.

Information covering the subject was gathered from dentists familiar with insurance practice, from the American Dental Association and from executives and medical officers of insurance companies. The difficulty of obtaining reliable information regarding the influence which oral conditions have upon mortality rates was recognized. The cost of a study to obtain data upon the subject was considered too great to be undertaken. However, a number of articles were prepared and submitted to those insurance companies who publish book-

* Presented to the Delegates Meeting of the C.D.A., Toronto, May, 1940.

lets for their policy holders.

While the insurance companies realize the value of dental health education, they do not appear to recognize the necessity for a complete dental examination of all applicants for insurance policies. In fact, there appears to be a change in attitude on the part of insurance companies toward the necessity of medical examination of applicants, and a large percentage of policies are now written without this requirement. In general it seems that provision for medical examination of applicants is made only where larger policies are concerned.

The Committee therefore, recommended that the matter of dental examination of applicants for insurance policies be tabled.

(Signed) A. E. HIGGINS,
Chairman.

*Summary Report of the Committee on Dental Care and Internships in Hospitals to the Canadian Dental Association**

IN November 1938, the American Hospital Association through its Committee on Professional Practice appointed a Dental Committee to establish uniformity in the dental care and internships in hospitals and to prepare a manual for use throughout the United States and Canada of the member hospitals of the A.H.A. which at present number over 4000 and represent 80% of all hospital beds in these two countries.

In Canada, the regional committees listed were appointed by the President of the C.D.A. with the assistance of the dental organizations in the various provinces. Each regional committee is to have the privilege of compiling the material for at least one chapter of the manual. A committee consisting of the chiefs of the dental staff of the various Toronto hospitals under the chairmanship of Dr. Douglas Tanner, undertook the preparation of a table of contents for the manual. This table of contents was approved by the Executive Committee at its meeting on January 29, 1940, and is appended.

As Dr. Tanner has recently been accepted for active service in the Canadian Dental Corps, Dr. A. J. McDonagh has been appointed Chairman and will guide the future activities of this regional committee.

The President of the C.D.A. was asked to assign the name of each chapter heading in the "Table of Contents" to a regional committee. After receiving the name of its chapter heading and the reference material gathered by the Executive Committee the members of each regional committee are asked to prepare that chapter of the manual under direction of the regional chairman, and return the completed text not later than October 15, 1940.

Upon receipt of similar chapters written by members of the American Dental Association the Executive Committee will reconcile each chapter with the corresponding chapter received from the regional committees of the Canadian Dental Association. After being reviewed by the Executive Committee, the text will then be forwarded for final approval to the

* Presented to the Delegates Meeting of the C.D.A., Toronto, May, 1940.

committee on Professional Practice of the American Hospital Association.

In the study up to the present time, two significant facts appear to be impressed upon the minds of the members of the Committee. These are as follows:

1. Dental Service in the hospital is organized primarily as an "in-patient" service.
2. The services of competent experienced dentists as full time members of the staff should be engaged by hospitals before considering the appointment of a dental intern.

TABLE OF CONTENTS FOR MANUAL ON DENTAL CARE AND INTERNSHIPS IN HOSPITALS

Foreword

1. Value of the Dental Department
2. Standards for Hospital Dental Services
3. Classification of Dental Services for Hospital Patients
4. Staff organization
5. Location of Service
6. Routine Procedures
7. Inter-relationship of Departments
8. Relationship of Dental Staff to Medical and Dental Faculties
9. Dental Interns and Internships
10. Records
11. Research
12. Formulary
13. Supplement.

NAMES AND ADDRESSES OF THE MEMBERS OF THE EXECUTIVE COMMITTEE AND OF THE EDUCATIONAL, FORMULARY AND CANADIAN REGIONAL COMMITTEES

Executive Committee:

Dr. T. L. Marsh, General Chairman, 2 College St., Toronto, Ont.
Dr. Ralph G. Harris, Gen. Secretary, 2 College St., Toronto, Ont.

Representatives of A.D.A.

Dr. Wm. H. G. Logan, Chairman, 55 E. Washington St., Chicago, Ill.
Dr. Lon W. Morrey, Secretary, 212 East Superior St., Chicago, Ill.

Representatives of A.A.D.S.

Dean A. D. A. Mason, University of Toronto, Faculty of Dentistry, Toronto, Ont.
Dean J. R. Cameron, Temple University, Philadelphia, Penna.

Representatives of C.D.A.

Dr. G. V. Fisk, Chairman, Medical Arts Bldg., Toronto, Ont.
Dr. Harvey W. Reid, Secretary, 195 Yonge Street, Toronto, Ont.

Representative of Committee on Professional Practice A.H.A.

Dr. Harvey Agnew, 184 College St., Toronto, Ont.

Two Members—At Large

Dr. A. E. Higgins, 86 Bloor St., West, Toronto, Ont.
Dr. George Morgan, Medical Arts Bldg., Toronto, Ont.

COMMITTEE ON DENTAL FORMULARY

Chairman — Gestie Perkin, D.D.S., B.Sc., (Dent.), 1208 Bloor St., W., Toronto.
Roy W. Ellis, B.D.S. (Adel.), D.D.S., B.Sc. (Dent.).
Ray Farquharson, M.B., F.R.C.P. (C).
Wallace J. Graham, M.D., D.D.S., M.R.C.P. (Lond.).
Oscar Hurst, Phm.B.
G. H. W. Lucas, M.A., Ph.D. (Toronto).
Douglas Tanner, D.D.S., B.Sc. (Dent.).

CANADIAN REGIONAL COMMITTEES—composed of the following representative dentists:

British Columbia — Drs. Archie Johnson, George Abrams, Ralph Archibald, Elwood Cox, Ray Goodwin, Roy Jamieson, Archie McRae, R. L. Stewart, all of Vancouver.

Alberta—Dr. W. Scott Hamilton of Edmonton and Drs. J. W. Clay and E. R. Upton of Calgary.

Saskatchewan—Drs. W. W. Irwin, Arthur Chegwin, Harold Johnson of Moose Jaw and Dr. Walter Hancock of Fort Qu'appelle.

Manitoba—Drs. H. J. Merkeley, J. O. Brown, J. A. Jobin, D. W. McCord, J. F. Morrison, W. J. Riley, all of Winnipeg.

Ontario—Drs. A. J. McDonagh, W. W. Breslin, J. H. Johnson, Helen Manchester, T. R. Marshall, T. N. Scott, E. C. Veitch, E. A. White, all of Toronto, and Drs. J. A. Kohli, S. M. Madill, and Douglas Tanner, all on Active Service C. D. Corps.

Quebec—Drs. D. Prescott, A. W. Mitchell, E. Vinet, all of Montreal, and Dr. J. K. Carver of Westmount.

New Brunswick—Drs. Harry H. Peters, James B. O'Brien, S. K. Wetmore, all of St. John.

Nova Scotia—Drs. J. Stanley Bagnall, G. R. Hennigar, W. W. Woodbury, all of Halifax.

Prince Edward Island—Drs. Heath McIntyre, J. E. Blanchard, of Charlottetown, and Dr. H. E. Clark of Summerside.

(Signed) G. V. FISK, Chairman.
HARVEY W. REID, Secretary.

The Forum

• MINIMUM ESSENTIALS FOR TOOTH REMOVAL OPERATIONS

by HENRY B. CLARK, Jr., M.D., D.D.S., and HENRY B. CLARK, D.D.S., St. Paul, Minn.

Condensed from Jour. of the American Dental Association.

SINCE every tooth removal is potentially a difficult one, it will become apparent that the only correct procedure is to conduct each case with the same degree of thoroughness.

Minimum Essentials

The minimum essentials for each case are:

1. A clear, recent x-ray picture of the tooth and surrounding tissues.
2. A suitable anaesthetic agent.
3. A good suction apparatus.
4. Brilliant illumination.
5. A competent assistant.
6. Suitable forceps and elevators.
7. A tray of instruments for performing flap procedures.

1. *A Clear, Recent X-ray Picture of the Tooth and Surrounding Tissues*—It is impossible to compromise on this point, as the very case in which a roentgenogram is omitted may be that in which an accident or serious error occurs. The cost of the film is best included in the fee quoted for the operation, and, in the case of worthy patients who object to a roentgenographic examination on the grounds of expense, the service may be furnished gratis. It is the dentist himself who suffers when he attempts to work under an inadequate diagnosis.

2. *A Suitable Anaesthetic Agent*—The use of gas should be avoided for impacted or devitalized teeth or for operations requiring trimming and suturing, unless a trained surgical team is at hand. Local anaesthesia affords a universally applicable service, and is to be preferred except in the presence of acute infection. The most important factor of all in the use of local anaesthetics in dentistry is that the syringe and needle be boiled prior to use. This warning cannot be stressed too strongly.

3. *A Good Suction Apparatus*—It is our belief that the suction principle in exodontia constitutes the greatest single advance in recent times. Several outstanding advantages commend it to our use:

a. When the suction tip touches the floor of the mouth or is inserted in the socket, a bloodless field is instantly created.

b. The operator is not only relieved of the delay occasioned by the sponging, but is able to achieve a degree of dryness and vision otherwise impossible.

c. The fact that bacteria and other debris are constantly being removed from the socket contributes to the sterility of the wound and reduces the incidence of "dry socket." In the gauze or cotton sponging technique, foreign matter is constantly being introduced into the socket, where the sharp bony points will catch and hold the minute cotton fibres. Since the entire mouth can be kept dry, there is no need for the patient to rinse the mouth or expectorate, and saliva does not enter the wound.

d. The saving in time and expense over the sponge technique will soon pay for the apparatus.

4. *Brilliant Illumination* — Good light is imperative. The preferred source is one which does not have to be held in the hand, namely, a head light or mirror. If this is not practical, an efficient shadowless spotlight will serve.

5. *A Competent Assistant*—No extraction should be attempted under gas without a surgical assistant in addition to the anaesthetist and operator. Procaine should not be used unless a nurse is able to give uninterrupted assistance with the operation. It is not fair to the patient to unduly prolong unpleasant procedures which could be carried out better and in less time if a second pair of hands were available. The practice of attempting extraction alone is thus to be condemned. Two nurses or office attendants are desirable; one is essential.

6. *Suitable Forceps and Elevators*—Three upper and two lower forceps do nicely, and four crossbar elevators (two pair) will fill most needs. It is essential that elevator points which are designed to engage or bite into cementum or dentine be kept perfectly sharp by frequent applications of the stone.

7. *A Tray of Instruments for Flap Procedures* — The required instruments are as follows: (a) a small sharp scalpel; (b) a periosteal elevator; (c) a small ribbon retractor or tongue blade; (d) a three-sixteenths-inch straight sharp chisel; (e) mallet; (f) needle, needle holder and suture material; (g) scissors; (h) a straight, stiff explorer, and (i) a rongeur.

These instruments must be boiled and kept sterile, in readiness at all times on a small enamel ware tray covered with a sterile or perfectly clean towel. Only if they are always at hand will one resort to their use promptly, as he should, when the need arises.

Conclusion

Let us all face the issue squarely. There are too many patients who can tell of two or three hour sessions with a tooth extraction. There are too many who are carrying root fragments in their jaws today. Too many average extractions have taken three or four times as long as was necessary. Osteomyelitis, pterygoid abscess, cervical cellulitis, fracture of the jaw, dry socket and a jagged condition of the ridges are still following operation for the removal of teeth. It is time that each of us establish a code of "minimum essentials" for tooth removal operations.

• LICHEN PLANUS

by ARTHUR WOODBURNE, M.D.,
Grand Rapids, Mich.

LICHEN planus is also commonly seen in the mouth in association with the general eruption of the disease. The characteristic papule is a pin head to pea sized, flat, shiny topped papule with a violaceous colour seen on the flexor surfaces of the wrists and forearms, the entire trunk, the ankles and legs. These lesions of the mouth commonly are made up of many tiny flat papules forming a fine spider web like tracery on the buccal mucous membrane in apposition with the molar teeth. They may also be seen on the sides of the tongue, and frequently on the lips. They give the involved areas a reticulated lace like appearance. In the mouth, the colour is usually white with a faint blue cast, the violaceous colour may show a little more on the lips. There is no membrane and efforts to scrape away the lesion will produce bleeding. On palpation there is a definite infiltration which may be felt, although often it is very slight.

Lichen planus is differentiated from leukoplakia by the fact that it usually occurs in younger people, does not produce much hyperkeratosis of the mucous membrane and is associated with the general eruption which can usually be best seen on the flexure surface of the wrists.

The lesions of the mouth may persist long after the skin lesions have involuted. However, a history of lesions of the skin can usually be obtained.

Treatment is largely systemic, requiring bismuth or mercury intramuscularly, arsenic and frequently x-ray therapy. — *Jour. Mich. State D. Soc.*

• IN RETROSPECT

by EDWARD SAMSON, L.D.S.R.C.S. Eng., F.C.S.
(Excerpt from D. Mag. and Oral Topics.)

I OFTEN wonder whether we think enough of where our fillings go and where our dentures are tonight.

I know, to my delight, that some of my fillings are now in the mouth of a hero of the Royal Navy; that they have been submerged for painful hours in a submarine, and over them have been drawn what, at the time, were thought to be the last breaths of a courageous man. Not one part of those circumstances is due to me, yet I feel that I have some intangible association with that drama of the seas. Then again, I know that a denture of mine is eating prison fare in the mouth of a trickster. The denture will gnash with rage or grind in boredom for five long years. It will chew with painful regularity an endless succession of plain penitentiary meals. Certainly I claim no part in these unhappy conditions. Yet there it is; distantly and unaccountably I am part of that mouth and its work. I only hope the fellow's denture does not need easing. I wish to have no responsibility in adding to his punishment.

I see also the brilliant smile of a screen heroine, a little forced and perhaps unreal in its flashing symmetry, but a smile for all that. It is her smile, yet it is mine also, for without my insistence that the regulation plate be worn constantly, without my persuasion forced on the somewhat unwilling long-legged schoolgirl a few years back the screen might never have been illuminated by that searchlight smile. I may not be so proud of that vast grin. Nevertheless, it is partly mine, and in that moment of retrospect I become a factor in film life. A pity, but I do.

• CHEILITIS, FIXED DRUG ERUPTION AND GASTROINTESTINAL ALLERGY FROM EOSIN DYE OF LIPSTICK

A CASE is reported by Hecht, Rappaport and Bloch, in the J.A.M.A. Dec., 1939, of a woman, 43 years of age, who complains of "itching eyelids, scaling and redness of the skin about the eyes and an eruption at the corner of one eye."

The skin of the face showed generalized erythema. On the area adjoining the outer side of the left eye there was a slightly elevated, roughly triangular, peanut sized, lichenified plaque, of dusky red violaceous colour, which was sharply demarcated from the surrounding skin. The skin in back of both ears was erythematous and scaling, *while the lips were dry, fissured and scaling.* There was moderate dry scaling of the scalp. Gastrointestinal disturbances were also present. By patch tests it was decided that one of the ingredients of the lipstick in use was the cause of the trouble. This finally was discovered to be tetrabromofluorescein.

Upon the substitution of a lipstick free from tetrabromofluorescein, the condition cleared and did not recur.

It is claimed that certain forms of lipstick may, in susceptible individuals, produce various forms of gingivitis resembling Vincent's infection very closely. B. W. Weinberger in a personal communication states that he has noted several cases resembling Vincent's infection which subsided on cessation of the use of lipstick and discontinuance of smoking.

When such a correlation is suspected, the dentist can very easily perform a patch test or advise the use of a non-indelible lipstick or other type of non-allergic pomade until it is decided whether the agent originally in use was culpable.—*N.Y. Jour. of D., April, 1940.*

Not the cry, but the flight of a wild duck, says a Chinese author, leads the flock to fly and follow.—Jean Paul Richter.

Conventions

SIXTEENTH ANNUAL FALL CLINIC OF THE MONTREAL DENTAL CLUB, MOUNT ROYAL HOTEL, MONTREAL, SEPTEMBER 25-27.

EASTERN ONTARIO DENTAL ASSOCIATION, CHATEAU LAURIER, OTTAWA, OCTOBER 14-15.

"This is the surprise, dear. I did it while you were away at the convention!"

By courtesy of Medical Economics.

PRINCE EDWARD ISLAND

Editor—M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN

D. T. Waye, Charlottetown

QUEBEC

ONTARIO

F. C. Harwood, Moose Jaw

NOVA SCOTIA

E. M. Laurin, Montreal

T. R. Marshall, Toronto

ALBERTA

S. G. Ritchie, Halifax

MANITOBA

John Clay, Calgary

NEW BRUNSWICK

J. F. Morrison, Winnipeg

BRITISH COLUMBIA

Harry H. Peters, Saint John

J. S. Bricker, Vancouver

"Deliberate Speed"

by W. W. WOODBURY, B.Sc., D.D.S., Halifax, Nova Scotia
President of the Canadian Dental Association

Commenting on a certain institution a recent writer deplored that it was suffering "because of activists who have lost their roots, and traditionalists who think nothing can change". He was not speaking of dentistry but he might very well have been, for every calling has a fair proportion of both of these groups and dentistry is no exception.

There are always with us those who seem to think that activity is the first consideration. For them movement takes precedence over direction. In times of crisis we all feel the temptation to precipitate action. The need is so obvious and so insistent and there does not appear to be time to think things through; so the immature program is hastily adopted, only to be discarded. This trial and error method is inevitable in fields where knowledge is very scanty but it is hard to justify where a little more enquiry would have furnished facts already available.

Then there are the confirmed traditionalists. Without a precedent they are lost. Their thinking is in terms of the past and of the status quo. They lack the elasticity needed for vigorous action in the face of unfamiliar

demands. Tradition has rich stores of experience for those who refuse to be dominated by it, but there is always the danger of coming under its hypnotic spell.

It is relatively easy to write the foregoing because it is in the third person, about those people who insist on being busy whether or no, and the others who will never risk stepping aside from the familiar path. But what about the second person and the first? What about your attitude and mine?

These are exacting days and the demands on most of us are not likely to diminish as time goes on. If we reflect on the foregoing we will be on the alert lest we become a prey to the nerve destroying hurry that gets nowhere, or suffer the inevitable paralysis of those who are guided only by custom. The cure for the first of these ills is study and reflection and careful planning; honest mental concentration, about the hardest work anyone is called upon to do: and for the second, the open mind and the refusal to be led only by precedent; and joined with both of these the disciplined will that throws the switch once the path is clear. And the result? — the vigorous sustained pursuit of the clear objective which is the only real "efficiency"; effective "deliberate speed" to use Francis Thompson's graphic phrase.

DENTAL CORPS NEWS

Enlistments of Alberta Dentists

General Staff M.D. 13

Major J. L. Wyatt, Medicine Hat.

C.A.D.C.

Major L. V. Janes, O.C., Edmonton; Capt. R. W. Bradley, Edmonton; Capt. H. K. Brown, Edmonton; Capt. D. R. McNabb, Edmonton; Capt. R. F. Denholm, Calgary; Capt. E. E. Groff, Calgary; Capt. A. M. Palmer, Calgary; Capt. W. E. Addinell, Ponoka; Capt. H. E. Halpin, Rimby; Capt. A. C. Ahrens, Lethbridge; Lieut. W. R. Stuart, Edmonton; Lieut. H. A. Banks, Coronation; Lieut. H. C. Leisemer, Didsbury; Lieut. W. S. Murray, Taber; Lieut. S. M. Somers, Hanna; Lieut. Hugh MacCrostie, Edmonton.

R.C.A.F. Dental Corps

Lieut. R. T. Shillington, Calgary; Lieut. C. M. Johnson, Calgary; Lieut. R. L. Scharff, Edmonton.

Royal Canadian Artillery

Capt. H. N. Heal, Calgary.

Eighth Field Ambulance

Capt. J. M. Warren, Calgary.

M.D. No. 6, Headquarters, Halifax, N.S.

Major Climo has been superseded by Major Gordon Dawson as District Dental Officer of M.D. No. 6. Dr. S. G. Ritchie reports that so many men from this District are in, or are going into uniform, that there is already a pronounced scarcity of dental practitioners in the province.

M.D. No. 10, Headquarters Winnipeg, Man.

New officers on duty include Lieutenants A. H. Burnstein, J. R. Fowlie, C. R. Oke, J. B. Rumberg and M. Wachnow. Captain G. E. Shragge is now Camp Dental Officer.

Letters have been received by the Corps addressed as follows: "The Canadian Dental Corp;" "The Canadian Dental Corpse." and "The Canadian Dental Core." Letters addressed as follows also reached the Corps: "The Canadian Mental Corps" (Why this was sent to Winnipeg is not quite clear.); "Dentistery —Camp Shilo;" "The Canadian Dentistings— Camp Shilo."

Major A. Gregor Smith, D.D.S., L.D.S., D.D.C., of Regina, Saskatchewan, D.D.O. of M.D. No. 12, with headquarters at Dundurn Camp, Dundurn, Saskatchewan. He is a native of Brampton, Ont., and served in the C.A.D.C. from 1916 to 1920.

Following graduation from the Dental Department, University of Michigan, Ann Arbor, he registered in Saskatchewan and has practised in Regina for over 25 years. When he received his D.D.C. diploma he registered in Ontario with the thought of moving east later but has never been able to break away from the prairies.

Major Smith is Past Master of Assiniboia Lodge, A.F. & A.M., No. 49, and is a Scottish Rite mason. He served for some time as Alderman and as a member of the Library Board and has built several business blocks in the city.

He is an enthusiastic golfer and lawn bowler and for some years has devoted a great deal of time to the study of Natural History.

Major Smith is married and is a member of Knox United Church.

Major Harold Vincent Driver, D.D.Sc., L.D.S., of Montreal, Quebec; District Dental Officer of M.D. No. 4. He was graduated from McGill University in 1914. After two years of practice in the City of Westmount he enlisted in the Canadian Army Dental Corps in October 1916, and served in England during 1917 and 1918.

Major Driver has been on the teaching staff of McGill University since graduation and also has been Demonstrator in Clinical Dentistry at the Montreal General Hospital.

He is a Past President of the Montreal Dental Club.

1st DIVISION DENTAL COMPANY,

The C.D.C. Field Torch

A difficult problem for the Canadian Dental Corps was a field torch. "Field" presupposes lightness, ruggedness, and continuous service. The torch must have a flame hot enough to melt gold, it must not require compressed air, and its fuel must be available without difficulty or undue expense.

A tentative solution was acetylene, but cylin-

C.A.S.F., ENGLAND, 1940

ders involved weight and difficulty in refilling. However, a simple torch was found and a motor-cycle size cylinder made possible a portable kit.

However, this was not considered a final solution, and experiments were continued with gasoline and alcohol. Finally, through the co-operation of one of the leading manufacturers, the problem was solved by drilling a hole into the manifold of the "issue" gasoline stove, inserting into it a length of metal tubing and putting a simple torch in the end of the tubing. Upon trial, it was found that this arrangement would melt gold readily.

With this outfit, the additional space and weight are those only of the metal tubing and torch—as opposed to a bulky cylinder—and the fuel is a regular issue of the Army Service Corps.

In cases where a torch is not required, a plug is screwed into the hole of the manifold in place of the metal tubing. This then leaves an ordinary gasoline stove for heating the field sterilizer or a pan of water.

The cut shows the stove with torch attached, and illustrates its simplicity and portability.

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M.D. No. 12
Corrections

1. In the article on No 12 Coy. C.D.C., August issue of the Journal, B. M. S. Rowe should read Q. M. S. Rowe.

2. Lieut. G. A. Grass should be Lieut. G. A. Brass. Lieut. G. A. Brass is the son of Dr. James Brass, Yorkton, who was pictured some months ago as "The Mighty Hunter."

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Captain R. D. Reid

Captain Reid was married August 17 to Miss Eleanor Stewart Young. The wedding took place in Regina at the home of the bride's parents. After a week spent in the Canadian Rockies they will live in Saskatoon for some time as the No. 12 Coy. C.D.C. is located in Dundurn Camp, 30 miles south of there.

Big men do not let facts destroy their ideals; only little men do that, and that is why, though they may get riches, they get nothing else out of life.—Lillah McCarthy.

Major W. G. Dawson, D.D.S., of Halifax, Nova Scotia, District Dental Officer of Medical District No. 6. He was graduated from the Dental Department of Dalhousie University in 1925 and practised in Halifax from that time until joining the C.A.S.F. in December, 1939.

He was appointed a member of the Faculty of Dentistry, Dalhousie University, in 1927, as part time demonstrator in operative dentistry and metallurgy.

He served in the N.P.A.M., C.A.D.C., from 1930 until transferred to the C.A.S.F., Canadian Dental Corps, as Captain, in December 1939. He was appointed District Dental Officer in June, 1940, succeeding Major C. B. Climo.

Major Dawson is married and his hobbies are shooting, fishing, curling and sailing.

NEWS FROM THE PROVINCES

QUEBEC:

Dean of McGill

On May 1 Dr. Arthur L. Walsh, who for some years has been acting Dean of the Dental Faculty of McGill University was appointed Dean of his Faculty.

NOVA SCOTIA:

50th Annual Convention

The 50th Annual Convention of the Nova Scotia Dental Association was held at White Beach Lodge, Liverpool, July 8-9.

A resolution was passed promising the co-operation of the Association with both the Government and the Medical Association in connection with the dental care of refugee children.

The following officers were elected for the ensuing year: President, Dr. J. A. Burke, of Sydney; Senior Vice-president, Dr. J. A. McLeod, of Bridgewater; Junior Vice-president, Dr. J. H. Rice, of Halifax; Secretary, Dr. J. Stanley Bagnall, of Halifax. Dr. G. A. Chudleigh, of Halifax, was appointed to complete the Executive.

NEW BRUNSWICK:

Dr. Daly Honoured

Dr. J. J. Daly, of Sussex, one of the deans of the dental profession in Canada, was presented with a silver tray by the New Brunswick Dental Society on the occasion of the 45th annual meeting of the Society held in Saint John.

The tray was inscribed as follows: "Presented to Dr. J. J. Daly on completion of 50 years in dentistry, by the New Brunswick Dental Society, July 8, 1940."—*Kings County Record, Sussex, N.B.*

ALBERTA:

Alberta Dental Association

The Alberta Dental Association held its annual meeting at the Palliser Hotel on Tuesday, July 2. The following are the members of the Board of Directors of the Association:

President, Major L. V. Janes, Edmonton.

Vice-president, Dr. H. L. Freeland, Calgary.

Secretary-treasurer, Registrar, Dr. R. A. Rooney, Edmonton.

Dr. C. D. Husband, Red Deer; Dr. W. F. Keith, Bassano; Dr. J. M. Dixon, Calgary; Dr. Gordon Miller, Lethbridge.

SASKATCHEWAN:

Council of the College of Dental Surgeons

The semi-annual meeting of the Council of the College of Dental Surgeons of Saskatchewan was held in Saskatoon, July 27.

The Council, on behalf of the profession in the Province, agreed to co-operate with the medical and nursing professions, the Anti-tuberculosis League and other organizations in providing health services for any British evacuee children who may be sent to Saskatchewan. The dentists will provide examination, charting and subsequent treatment for all such children for the duration of the war. A centre will be established in Regina and another in Saskatoon where all examinations and charting will be done while the children are receiving a thorough medical examination, before being sent to their ultimate destination.

At the recent election for two members of the Council, Dr. D. J. Brass, Yorkton, and Dr. P. W. Winthrope, Saskatoon, were re-elected by acclamation for a term of two years. Those whose term of office has not expired include Dr. W. W. Irwin, Moose Jaw; Dr. E. W. Mounteer, Regina; and Dr. W. F. Smith, Regina. These five members, with Dr. L. J. D. Fasken as Secretary-treasurer and Registrar, will constitute the Council for the year.

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Sympathy to Lt.-Col. Cameron

The sympathy of Canadian dentists, and particularly of his confrères in Saskatchewan, is extended to Lt.-Col. G. L. Cameron, of Ottawa, on the recent passing of his mother. Lt.-Col. Cameron is second-in-command of the Canadian Dental Corps and Past President of the Canadian Dental Association.

GENERAL NEWS

PAST MEETINGS OF THE CANADIAN DENTAL ASSOCIATION

Date and Place of Meeting	*President and Place of Residence at time of Election*
1902—Montreal, Quebec.	*F. A. Stephenson, Montreal, Quebec.
1906—Montreal, Quebec.	Eudore Dubeau, Montreal, Quebec.
	*S. W. McInnis, Brandon, Man. (Died while President-elect.)
1908—Ottawa, Ontario.	J. M. Magee, Saint John, N.B.
1910—Toronto, Ontario.	*A. E. Webster, Toronto, Ontario.
1912—Hamilton, Ontario.	*W. D. Cowan, Regina, Saskatchewan.
1914—Winnipeg, Manitoba.	G. F. Bush, Winnipeg, Manitoba.
1916—Montreal. Quebec.	F. W. Barbour, Fredericton, N.B.
1918—Chicago, Illinois, U.S.A.	Joseph Nolin, Montreal, Quebec.
1920—Ottawa, Ontario.	*Frank Woodbury, Halifax, N.S.
1922—Toronto, Ontario.	H. F. Whittaker, Edmonton, Alberta.
1924—Vancouver, B.C.	S. W. Bradley, Ottawa, Ontario.
1926—Halifax, N.S.	*George Kerr Thomson, Halifax, N.S.
1927—Toronto, Ontario.	J. W. Clay, Calgary, Alberta.
1928—Toronto, Ontario.	J. W. Clay, Calgary, Alberta.
1929—Regina, Saskatchewan.	Fred J. Conboy, Toronto, Ontario.
1930—Montreal, Quebec.	M. H. Garvin, Winnipeg, Manitoba.
1932—Toronto, Ontario.	A. W. Faulkner, Halifax, N.S.
1934—Toronto, Ontario.	Philippe Hamel, Quebec, P.Q.
1936—Montreal, Quebec.	G. L. Cameron, Swift Current, Sask.
1938—Vancouver, B.C.	R. L. Pallen, Vancouver, B.C.
1940—Toronto, Ontario.	Stephen A. Moore, London, Ontario.
1940-1941 President	W. W. Woodbury, Halifax, N.S.
President-Elect	Arthur L. Walsh, Montreal, Quebec.

* Deceased

Purchase of U.S. Funds

Permits are invariably authorized in order to facilitate adequate Canadian representation at conventions of recognized national organizations. Applications for travel funds should be made through the Canadian head office of the organization, who should certify that the applicants concerned are authorized delegates and recommend that permission be granted.

J. Stanley Bagnall,
Secretary, C.D.A.

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Successful D.D.C. Candidates

The following is a list of the successful candidates who wrote the annual Dominion Dental Council examinations, 1940.

Allen, Harvey A.; Campbell, A. H. L.; Campbell, R. H.; Cragg, Thomas Knowlys; Danzinger, George William; Dixon, Campbell C.; Dowd, John Patrick; Drummond, James Ross; Epp, Frank Lowen; Feasby, Robert Edward; Goodman, Abraham Lincoln; Kushnerov, Ben Louis; Merkeley, Garth Howard; McIntyre, Donald Frost; Netherton, Frederick James; Richmond, John Errington; Riffel, John Melchior; Rylands, Donald Allen; Smith, Arthur Reginald; Smithurst, Roy; Smylski, Peter; Star, Morton; Strokon, Michael; Tickle, Russell James Settree; Warriner, Jack Leavens; Warshawski, Michael Paul; Welgan, William Michael; Wright, Oliver Morrison Cook.

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Fall Clinic of Montreal Dental Club

The Sixteenth Annual Fall Clinic of the Montreal Dental Club will be held at the Mount Royal Hotel, Montreal, September 25, 26 and 27.

The following is the program:—

1. The Function of the Operative Dentist in Conserving Teeth and Health.

R. E. Blackwell M.S. D.D.S., Professor of Operative Dentistry, Northwestern University, Chicago, Ill.

2. Stresses Induced by a Partial Denture upon its Supporting Tissues and Practical Means of Effecting its Control.

O. C. Applegate D.D.S. D.Sc., Director Department of Partial Denture Prosthesis, University of Michigan, Ann Arbor, Mich.

3. Periodontia for the General Practitioner.
Sidney Sorrin, D.D.S.

4. Words That Win Over Patients.

Elmer Wheeler, President of Tested Selling Institute, New York.

5. Surgery by the Dental Surgeon.

H. S. Dunning, B.S. D.D.S. M.D., Professor of Oral Surgery, Columbia University, New York.

6. Silicate Cements.

Dr. I. C. Schoonover, National Bureau of Standards, Washington, D.C.

Table Clinics by prominent Montreal practitioners.

Daily Luncheons.

Large and diversified exhibit section.

Many other interesting features.

A hearty invitation is extended to all ethical practitioners to attend this progressive meeting. For all further information please apply to

Dr. M. L. Donigan,
Drummond-Medical Building,
Montreal.

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Talking Sticks

At the beginning of this issue of the Journal appears a totem pole photograph taken by Mr. A. R. Willis and kindly loaned to us by Mr. Wilson, Editor of The Beaver, the official organ of the Hudson's Bay Company.

According to Mr. Willis these totem poles are frequently called Talking Sticks because they speak symbolically of the feelings and thoughts of the people they represent. They are not pagan gods or demons to be worshipped but are owned by individual families whose deceased leaders they commemorate. Only the nobility, the "Who's who" of the families are considered worthy of totem poles. The crests or heraldic emblems carved on the poles, are the property of the clan as a whole, and illustrate history and traditions, tribal recollections, familiar myths, all sorts of tribal memories. The ownership of these symbols, just like that of the heraldic crests of European aristocracy, is guarded jealously and handed down from generation to generation.

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Cleveland Meeting of A.D.A.

The American Dental Association will hold its annual Convention in Cleveland, September 9-13. The first general session will be addressed by Senator James E. Murray, of Montana on "General Health Legislation." He will be followed by Reverend Norman Vincent Peale, of New York, who will speak on "The Art of

Living." At the second general session Mr. Frederic Snyder, of Kingston, N.Y., will discuss "Our Views and the Hour's News." At the third session Dr. Ernest A. Hooton, Professor of Anthropology, Harvard University, will give an informal lecture illustrated with slides on the subject "An Anthropologist Ruminates on Dentition and Devolution."

This meeting promises to be without parallel in the history of the Association. It will be unique also in that it will celebrate the centenary of American dentistry.

•

A Community Plan for Dental Care in Relation to a National Health Project

Published in June, 1940 Issue, American Journal of Public Health

The Committee on Community Dental Service of the New York Tuberculosis and Health Association recently put forth for the consideration of organized dentistry and as a basis for future planning "A Community Plan for Dental Care in Relation to a National Health Project." This Plan, which is intended only to apply to such groups as *will be given medical care under legislation,* endeavours to create an awareness on the part of the dental profession, government officials, public health authorities, welfare workers and others, of the basic relation of dental care to general health and to indicate that no national health program is complete unless this basic relation is taken into account. Attention was called to the fact that only those having dental training are qualified to devise a program for the control of dental disease. In formulating the Plan full cognizance was taken of the importance, from the general public health standpoint, of protecting private practice.

Its principles provide for maintenance of quality of service, limitation of service to income eligible groups and provision of adequate rewards in compensation, prestige and security for those who elect to enter the field. The need for modification according to experience is recognized.

Provision is made also for leadership and control by the American Dental Association in accordance with articles adopted by the House of Delegates known as the National Health Program. The statement of the National Health Program Committee published in the Journal of the American Dental Association in September, 1939 contained certain important considerations which were used as a basis in formulating the present plan. They are "first, the needs of the people; second, the obligation of the taxpayer; third, the service to be rendered, and fourth, the interests of the profession."

The setting up of service to be rendered must be in the hands of the profession.

There is no attempt to provide complete dental service for all classes in the population at one and the same time. What is proposed is a realistic plan based on local experience and on available surveys of dental conditions and community economics. Complete dental care for children should be supplemented by an extensive public health education program.

The people to be served should be classified from the standpoint of their ability to pay for service as follows:

1. Those who cannot afford any care or can pay for only the barest emergency service.

II. Those who can only pay part of the normal cost.

III. Those who can pay normal cost of dental care.

Dental care provided for adults should be classified as follows:

Suggested *minimum* dental care should be the minimum compatible with the health requirements of the individual in order to rehabilitate him and render him employable. It may include adequate diagnosis, elimination of infection, relief of pain, and construction of dentures where essential to health and rehabilitation, treatment of fractures and emergency treatment.

Suggested *adequate* dental care should include examination and diagnosis; relief of pain; extraction of non-savable teeth; elimination of oral pathological conditions; filling of readily savable teeth; construction of such dentures, partial or full, as are necessary to provide adequate function.

Dental care provided for children would be of a more complete nature, since it is generally agreed that adequate dental care should be given to all children, both those who cannot afford any care or can pay for only the barest emergency service and those who can pay only part of the normal cost. It is proposed that

this care should start not later than at four years of age.

Inducement to start the child at an earlier age, preferably at two years, might be made by limiting complete care, including filling of deciduous teeth etc., to children registered at four years of age and under. For children registered at a later age service would include extraction of badly decayed deciduous teeth, prophylactic odontotomy for first permanent molars, fillings in permanent teeth as needed, and prophylaxis. *The above service to children of both groups should be continued up to sixteen years.*

Dental service should be set up under (1) a Dental Council as provided in the American Dental Association program. This Council should have full control of matters pertaining to qualifications of dental personnel, quality of service and supervision; and (2) a Joint Administrative Board, non-political in character, composed of dentists, health officials or laymen, with a lay chairman, the representation of dentists being equal to that of other groups. The Board would determine the extent of services to be rendered, control financial arrangements, set eligibility levels, etc.

In a national health program broad scale organization is needed. Each state would have a chief or director and one or more assistants, all full-time dentists chosen under civil service.

In most communities dentists who so elect would receive patients in their private offices subject to suitable regulation. The Plan calls for provision of dental care largely in the private office over a large part of the country. The establishment of clinics is only recommended where it is found that clinic operation would be more efficient and economical, as in the large cities. In such communities there would be the least likelihood of clinics having an unfavourable influence on private practice. Where clinics are set up there should be separate clinics for children and for adults. In rural areas where dental offices are widely scattered mobile units might be used.

Those able to pay part of the normal cost of their dental care should be provided for. An agency, probably attached to the department of welfare, under the general direction of the state authority, would be set up in each community to receive applications for free or part-pay patients and make financial arrangements.

Choice of dentists for part-pay patients would be free from among those selected to participate in such service by qualifying with the Dental Council.

Compensation for dentists receiving referred patients in their offices on a part-time basis would be essentially on an hourly basis with minimum standard set by the state dental council as to the amount of service. Variation in rate would depend on the size and location of the community and the corresponding overhead costs.

Where clinics are set up, service would be on a full-time basis with salaries comparable to those set in the military and Public Health corps. Opportunities for advancement in rank and compensation would be provided.

The cost would be borne by the communities with state and federal aid as in the corresponding provisions for giving medical care that may be developed.

▪

Sluggings

Sluggings in holdups caused over half of the jaw fracture cases admitted to the U.S. Veterans' Hospital at Hines, Illinois, in the past seven and one-half years, a staff physician reports.

Science News Letter:
May 4, 1940.

IN MEMORIAM

Louis Victor Savage, of St. Thomas, Ont., aged 53, died suddenly August 9 from a heart attack while watching the target practice at the Gun Club range.

He was graduated from Ann Arbor, Mich., in 1913 and took a post-graduate course at the R.C.D.S. in Toronto, starting practice in St. Thomas in 1914.

He was a member of the congregation of Holy Angels' Roman Catholic Church and the Holy Name Society. He was interested in rifle shooting and was a member of the St. Thomas Rifle Club.

Dr. Savage is survived by his widow, his mother, two daughters, four brothers and one sister.

. . . SECTION FRANÇAISE . . .

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La Salive Constitue-t-elle un Danger d'Infection au Cours des Traitements Radiculaires? *

par E. LERICHE

Chef du Service de Stomatologie de l'Hôpital de Lanessan, Hanoï

Nous nous souvenons qu'au temps heureux de nos études, nos vénérés maîtres nous présentaient la salive comme un liquide redoutable qui devait être mis à la base de presque tous les échecs de la dentisterie opératoire moderne. A les entendre dire, ce liquide visqueux, pénétrant sournoisement dans les canaux des dents en traitement, causait les pires ennuis à l'opérateur et au patient. Tout le cortège des arthrites rebelles, des récidives de carie, des infections à retardement, devait être mis sur le compte de l'imprégnation salivaire des canaux et des cavités.

Nous avons encore la vision de la pose de la digue et du supplice du patient, bâillonné pendant de longues minutes, exprimant ses sensations par des grognements et des gestes incompréhensibles.

Cet exercice ne nous enchantait guère et, jeune diplômé timide et hésitant, nous avons vu fuir pas mal de clients à qui nous avions imposé ce supplice.

C'est avec inquiétude que nous avons dévitalisé notre première dent sans mettre la digue et nous nous attendions à voir revenir notre client, l'opprobre aux lèvres . . . mais il ne s'est rien passé du tout.

* L'Information Dentaire (mai et juin 1940).

Enhardi, nous avons relégué petit à petit tout l'attirail à digue au fond d'un tiroir. Un jour, il fit le bonheur d'un jeune étudiant et nous n'en conservons que le souvenir que l'on voue à un objet incommode et inutile.

Et, à la suite de quinze années de pratique, nous sommes arrivés à la conviction formelle que la salive n'est pas aussi redoutable que l'on veut bien le dire . . ., et nous voulons essayer de faire partager cette conviction à nos jeunes confrères.

Il est incontestable que la salive constitue une gêne réelle en ce qui concerne les restaurations dentaires, obturations, aurifications, scellements, etc. . . . On ne saurait exécuter correctement ces travaux sans avoir assuré le mieux possible la siccité de la cavité ou de la dent elle-même.

Nous ne voulons pas discuter ici ce principe immuable, mais le fait que la mise en contact des parties internes de la dent avec la salive, au cours des traitements de la carie ou des dévitalisations immédiates, est considérée par la plupart des auteurs comme une source certaine d'infection secondaire et, partant, comme la cause principale des échecs.

Quel est donc ce terrible ennemi? C'est un liquide formé par le mélange du produit de la sécrétion de trois espèces de glandes salivaires. Ces sécrétions de composition et caractères physiques un peu différents se mélangent pour former la salive mixte. Sans doute allons-nous trouver dans cette salive mixte les éléments qui la rendent redoutable: Voyons d'abord sa composition chimique, d'après un certain nombre d'auteurs:

Composition chimique de la salive humaine.

Composants	AUTEURS						
	Berselius	*Jacoubowitsh*	*Frerichs*	*Herter*	*Lehmann*	*Robin*	*Hammerbacher*
Eau	992,9	995,16	994,10	994,7	—	995–998	994,2
Substances solides	7,1	4,84	5,3	5,9	3,5–8,4	5,60	5,8
Mucines et épithélium	1,4	1,6	2,1	—	—	1,9	2,2
Substances organiques.	3,8	1,4	1,4	3,3	—	0,6–4,0	1,4
Sels	1,9	1,8	2,2	1,3	—	3,5	2,2

Hum! c'est un peu vague! Mais Robin, Hammerbacher et Lehmann nous donnent de plus grandes précisions sur sa composition minérale:

Composition minérale de la salive humaine mixte.

Composants	*Teneur p.* 1.000		
	Robin	*Hammerbacher*	*Lehmann*
Anions:			
Chlorures (Na et K)	0,84	0,184	
Sulfates (Na)	0,02	0,189	
Carbonates (Na, K, Ca et Mg)	0,04	—	
Phosphates (Na, Ca, Mg et Fe)	0,90	0,189	
Sulfocyanure de K	0,06	—	0,06–0,09
Cations:			
Na		0,46	
K		0,96	
MgO		0,15	
FeO		0,50	

Kulz a analysé les gaz dissous dans la salive:

Gaz dissous dans la salive mixte humaine:

Composants	*Teneur p.* 100
Oxygène	0,84– 1,46
Azote	2,37– 3,77
Acide carbonique dissous	2,31– 4,65
Acide carbonique combiné	40,2 –62,5

Nous ne voyons rien dans ces différents tableaux qui soit susceptible de nuire aux tissus internes de la dent qui sont mis au contact de la salive (ne parlons pas des tissus externes... la salive est leur milieu vital).

Pas de caustique, pas d'acides, pas d'irritants... même pas le moindre gaz toxique en dissolution. Au contraire nous y voyons des substances qui seraient plutôt antiseptiques: Chlorure de sodium et de potassium, sulfate de soude et sulfocyanure de potassium... On y trouve même de l'oxygène dont les propriétés microbicides ne sont plus à démontrer.

Pardon, nous direz-vous, et les microbes? Que faites-vous des innombrables microbes contenus dans la salive? Ce sont eux qui viennent infecter les dents en traitement.

Voyons quels sont ces microbes et comment ils vivent dans la salive. On sait que la bouche contient un très grand nombre de microbes qui sont surtout de provenance exogène. Les uns sont véritablement pathogènes: streptocoque pyogène doré, pneumocoque, tétragène, bacille de Klebs Lœffler, bacille de Capitan et Charrin, bacille de Vincent, bacille de Kock, etc... Les autres sont saprogènes et diastasigènes: le bacterium termo, le bacillus anylobacher, le vibrio rugula, le leptothrix buccalis, les spirilles, le spirochète denticola, le bacillus subtilis, le bacillus colis commonis, etc... etc... On ne trouve pas moins de soixante-dix espèces de microbes dans la bouche!

Voilà une flore bien variée! Les profanes se demandent comment on peut vivre avec une pareille colonie en permanence dans la bouche? Pourquoi cela?

Nous savons que les microbes pathogènes vivent dans la salive à l'état latent, c'est-à-dire inoffensifs. Il faut donc bien que leurs facultés anarchiques soient annihilées par le milieu dans lequel ils vivent.

La salive aurait donc un véritable pouvoir bactéricide? Comment s'exerce ce pouvoir? D'abord mécaniquement. La mucine salivaire, dont la teneur est constante, les isole les uns des autres et en fait un magma peu propice pour une culture intensive.

D'autre part, du point de vue de ses caractères physiques, la salive a une action bactéricide résultant du pH salivaire, de son pouvoir tampon et de son pouvoir oxydo-réducteur. Voici le tableau de son acidité réelle qui a été étudiée récemment par divers auteurs:

pH salivaire:

CHIFFRES		*Méthodes*	*Auteurs*
Extremes	*Moyens*		
6,77–7,22	7,0	Colorimétrique	Magitot
6,8 –7,0	6,9	—	Mlle Oppenet
7,0 –7,2	7,10	Electrométrique	Skosowski
6,0 –7,0	7,0	—	Henderson
6,0 –7,0	7,0	Colorimétrique	Kopaczewski
6,85–7,65	7,20		Tuerkheim
6,8 –7,2	7,0		Confrontation

Le pouvoir tampon de la salive envers les ions H+ a été examiné par Becker en 1928, par Duysensz en 1930, puis par Hulus, Hirota, Soyenkoff et d'autres. D'après ces auteurs la salive n'aurait pas un grand pouvoir régulateur.

Plus récemment Kopaczewski a fait des essais sur le pouvoir tampon de la salive, non seulement en ce qui concerne les ions H+ mais aussi les ions en général et de l'action des substances actives, du point de vue capillaire. Ses résultats sont résumés dans les tableaux ci-dessous représentant les oscillations entre sept échantillons de salive humaine recueillie sous paraffine.

Caractères capillaires de la salive humaine à 20°C (Kopaczewski):

Caractères physiques	*Chiffres extrêmes*	*Méthode*
Densité	1,025– 1,040	Picnométrie
Conductibilité électrique	330–340,10–4	Pont de Kohlrausch
Viscosité	1,10 – 1,32	Kopaczewski-Scarpa
Tension superficielle	69,5 – 71,4	Kopaczewski (tonométrique)
pH+		

Pouvoir tampon de la salive mixte humaine (Kopaczewski):

Nature du pouvoir tampon	*Quantités tamponnées*
Ions OH+	NaOH M- 1000–6 cc, op. 100 cc
Ions H+	HCl M- 100 –9 cc, —
Ions en général	KCl M- 40 –8 cc, —
Tensions superficielles	CH3 COOH 1% –8 cc,5 —

On voit par ces chiffres que le salive présumée normale possède un pouvoir tampon assez analogue à celui du sérum humain, c'est aussi l'opinion de Becker.

Le pouvoir oxydo-réducteur de la salive a eté déterminé par Vles à l'aide de la méthode électrométrique. De la salive intra buccale (à pH+ =6.8) : à bouche ouverte il serait de 24,5 et à bouche fermée, de 20,8.

Au point de vue de son pouvoir tampon envers les ions H+ et les ions en général, la salive s'oppose à toute modification propice au développement des germes pathogènes dans son milieu.

Si les microbes pathogènes ne s'y cultivent pas c'est qu'elle présente un pouvoir régulateur manifeste et que d'emblée ses caractères physicochimiques ne se prêtent pas à cette culture.

Voici en effet, d'après Kopaczewski, les pH+ optimaux pour la culture de quelques microbes pathogènes:

pH+ optimal pour les cultures des microbes pathogènes (cultures de vingt-quatre heures sur sérum humain):

Microorganismes	*pH optimal*
Bac. Anthracis	6,9
Staphylococcus aureus	6,9
Bac. Typhi	6,0
Streptrococcus	6,0
Bac. Diphterioe	8,1
Bac. Dysenterioe	6,2

On sait que d'une façon générale tous les microbes modifient le pH+ initial

des milieux dans lesquels ils pénètrent. Or le pouvoir tampon ionique de la salive s'oppose à certaines modifications de ses caractères physico-chimiques et la rend impropre à la pullulation des agents pathogènes.

En dehors de ce pouvoir régulateur envers les ions H+ la salive maintient sa composition ionique globale et ce qui plus est ses caractères capillaires, sa tension superficielle. Or à ce point de vue les microbes sont particulièrement fragiles et en dehors de certaines limites ils sont: soit lysés, soit agglomérés.

La salive par ses caractères capillaires, la viscosité forte de la mucine et sa tension superficielle, est impropre à la vie microbienne intense.

Enfin, le pouvoir oxydo-réducteur de la salive, tout comme sa réaction réelle, s'oppose à la pullulation microbienne. On a démontré qu'au-dessous du pH+ =12,0 les staphylocoques ne peuvent vivre: les streptocoques doivent avoir un pH+ supérieur à 21,0. Quoique ces chiffres soient incertains et les recherches peu nombreuses, le fait de l'existence d'un seuil oxydo-réducteur est incontestable, car il se répercute sur toute l'échelle des êtres microscopiques.

D'autre part, il convient de noter que la salive a un pouvoir bactéricide particulier en dehors de son intervention par son pH. Tempestini a démontré que la salive a une action biologique propre, bactéricide, qui se démontre dès le prélèvement dans la cavité buccale et qui s'atténue progressivement. La salive filtrée est beaucoup moins bactéricide que la salive fraîche et cependant ces deux salives ont le même pH—. Il ne s'agit donc pas uniquement de la valeur du pH— salivaire, mais bien d'une réaction chimico-physique particulière, nocive de la vitalité et au développement des microbes.

Alors qu'est-ce à dire? On nous présente comme source d'infection des cavités et des canaux,, un liquide dans lequel les agents pathogènes les plus redoutables ne peuvent pas vivre ni se cultiver, ni se reproduire!

Il est bien vrai cependant que ces microbes peuvent devenir virulents dans certaines circonstances: rupture de l'équilibre biologique du milieu buccal (Lebedinski) c'est-à-dire modification du pH salivaire, soit pour des raisons d'ordre général, soit au cours de lésions buccales (stomatites, etc.). Mais en ce qui concerne la conduite des traitements de dentisterie opératoire, nous verrons que cela n'a pas grande importance.

Mais, direz-vous, si les microbes pathogènes ne peuvent vivre dans la bouche il n'en est pas de même des agents de putréfaction: le bactérum termo, le vibrio-régula, par exemple, qui se multiplient en permanence dans la bouche. Et tous les microbes de la carie! et tous ceux du tartre!

En ce qui concerne les agents de putréfaction, pour qu'ils soient dangereux dans une dent en traitement, il faut:

1° Qu'il y ait quelque chose susceptible de se putréfier rapidement. Or si la cavité a été bien débarrassée de la carie, si la pulpe a été excisée ou les filets radiculaires enlevés, il ne reste pas grand'chose qui puisse faire le bonheur des agents de putréfaction;

2° Il faut également que rien ne vienne gêner leur action, ni les détruire. Or nous ne manquons pas de placer dans la dent, à chaque séance de traitement, des antiseptiques puissants qui agissent soit directement, soit par vapeurs. Par ailleurs nous ne voulons pas considérer la putréfraction comme due uniquement à l'apport microbien de la salive. Combien de gangrènes pulpaires n'observons-nous pas dans des dents hermétiquiment closes? (mortifications d'origines chimiques sous des ciments translucides, mortifications par traumatismes, mortifications par des couronnes sur des dents vivantes posées trop près de la pulpe... etc.). Il faut donc bien admettre que les agents de putréfaction ou d'infection gagnent les foyers par d'autres moyens que le voie salivaire.

Par ailleurs, nous savons très bien que les agents de putréfaction ne font leur œuvre morbide que s'ils peuvent produire des fermentations. Au cours de nos traite-

ments nous ne cessons d'introduire dans les dents toute une gamme de substances qui interdisent toutes fermentations.

Ces substances que nous avons tous à notre disposition sont la garantie formelle de la protection absolument efficace contre les agents microbiens contenus dans la salive.

Nous attaquons un quatrième degré ouvert et infecté, avec complications: arthrite, abcès, etc..., au moyen d'antiseptiques que nous enfermons dans la dent. Par la simple action des vapeurs dégagées par ces médicaments, nous arrivons à vaincre, en quelques séances, quelquefois dès la première, les microbes en pleine virulence, nous arrivons à faire résorber des collections purulentes, des zones d'ostéite et même des granulomes!

Il est donc pour le moins paradoxal que l'on vienne nous raconter que les quelques microbes plus ou moins latents apportés par le contact très court de la salive (quelques minutes au plus) avec les canaux dentaires, soient un danger d'infection, alors que ce contact sera immédiatement suivi de l'application de ces antiseptiques qui jugulent les infections les plus intenses.

D'autre part, ces substances antiseptiques séjournant un grand nombre d'heures dans la dent, imprègnent les parois de la cavité et des canaux, fusent dans les canalicules de Tomes et créent un milieu impropre à la pullulation microbienne.

Quant à ces prétendus accidents infectieux occasionnés par la pénétration de la salive dans les canaux radiculaires, nous avons voulu en faire l'expérience clinique.

Il nous a suffi, pour cela, de laisser absolument ouvertes des dents en cours de traitement pour caries pénétrantes, pendant un temps plus ou moins long. Cette chose est peut-être nombreuse en clientèle, mais nous avouons humblement que nous avons osé le faire dans notre service hospitalier, convaincu d'ailleurs que nous remédierions facilement aux accidents éventuels.

Nous avons donc fait une série d'expériences sur cinq dents et sur cinq malades différents:

Dent 1 — Pulpite aiguë.

2 septembre 1938. — Extirpation de la pulpe et du filet radiculaires sans protection contre la salive sous anesthésie locale. Légère hémorragie, lavage à l'eau bouillie—cavité laissée ouverte sans aucun pansement ni aucune obturation, malade convoqué pour le 5 septembre 1938.

5 septembre 1938. — Aucune réaction, cavité remplie de débris alimentaires dont l'odeur gêne le malade—simple lavage de la cavité à l'eau tiède et mise en place d'une boulette de cotton sans aucun antiseptique—la boulette de coton ayant tendance à s'imprégner d'une mauvaise odeur, nous avons chargé le malade de la changer deux fois par jour et nous l'avons convoqué pour le 12 septembre 1938, en lui conseillant de venir immédiatement à la moindre manifestation douloureuse.

12 septembre 1938,—c'est-à-dire 10 jours après l'ouverture de la dent—aucune réaction, nous avons repris le traitement classique et nous avons laissé la dent un mois en observation après avoir obturé le canal.

20 octobre 1938. — Aucun fait anormal ne s'étant produit, nous avons obturé la dent. Le malade étant revenu 6 mois après pour un travail de prothèse, nous n'avons rien constaté d'anormal à sa dent traitée, une radiographie ne nous a révélé aucun accident.

Dent 2 — Pulpite aiguë.

16 septembre 1938. — Mise en place d'un Nécronerve de Rolland sous ciment provisoire.

19 septembre 1938.—Fraisage de la cavité—extirpation de la pulpe et des filets, cavité laissée ouverte sous une simple boulette de coton, renouvelée chaque jour par le malade, pendant deux semaines.

3 octobre 1938.—Aucune réaction—reprise du traitement classique.

10 octobre 1938. — Obturation des canaux.

25 octobre 1938. — Mise en place d'une couronne sur la dent. A l'heure actuelle, le malade ne se plaint d'aucun accident.

Dent 6 | —*IV^e degré sans complications, ni climiques, ni radiographiques.*

18 novembre 1938. — Ouverture de la cavité en milieu humide — mise en place d'un Rocklès n° 4 sous gutta — 2 séances suivantes à 48 heures d'intervalle — même traitement accompagné de nettoyage des canaux.

Quatrième séance, dent laissée ouverte sous simple boulette de coton changée chaque jour par le malade pendant 8 jours. Aucune réaction au bout de ce temps. Avons traité et obturé la dent, par la méthode classique 5 semaines après.

Nous avons pu faire un contrôle radiographique vers la fin août 1939, qui ne nous a rien révélé d'anormal.

Deux autres dents: $\overline{4}$ | pulpite aiguë et | $\underline{7}$ IV^e degré avec une légère arthrite ont été traitées dans des conditions analogues et n'ont procuré aucun ennui, ni au malade, ni à l'auteur.

Il s'agit là, bien entendu, d'expériences types que nous n'avons pas jugé utile de recommencer, mais qui se trouvent renouvelées chaque jour dans notre pratique quotidienne. Précisons bien que si nous ne nous amusons pas à laisser les dents ouvertes après la première ou la deuxième séance, nous ne nous inquiétons nullement, si la salive vient les baigner copieusement au cours des séances de traitement. Nous nous contentons seulement d'assurer la siccité de la dent pour enfermer les pansements sous le ciment provisoire ou pour faire la restauration définitive.

Dans notre service hospitalier nous obturons bon an, mal an, quelque 600 dents depuis 9 ans et mon Dieu! nous n'avons ni plus ni moins d'ennuis ou d'échecs que n'importe autre praticien.

Et nous osons avouer (oh! horreur) que nous ne possédons plus le moindre petit morceau de caoutchouc pour digue et que nous n'utilisons la pompe à salive que dans les cas où la salivation est exceptionnellement abondante. Le bon vieil automaton et des rouleaux coton nous suffisent amplement dans la majorité des cas.

D'ailleurs combien de confrères font un usage permanent de la digue? Certainement pas dix pour cent et les dents de nos contemporains ne s'en portent pas plus mal! Nous avons vu dans la bouche de nos patients d'excellents travaux, durant depuis de longues années exécutés par des confrères. Nous avons souvent demandé aux malades si leur dentiste avait appliqué la digue, au cours du traitement. Crions bien fort "que malgré nos explications, les malades ne savent même pas de quoi il s'agit" (*sic*).

Notre conclusion est qu'il faut cesser de voir la salive comme une cause certaine d'infection des cavités et des canaux en traitement. Nous pensons, pour l'avoir constaté pendant de nombreuses années sur un très grand nombre de caries pénétrantes, que son contact passager avec les canaux en traitement est absolument inoffensif et qu'il faut seulement considérer la salive et s'en protéger comme d'un liquide gênant pour les restaurations et les scellements.

Pour être menés à bien, les traitements de dentisterie opératoire nécessitent une attention particulière et il ne convient pas de les compliquer davantage par des impedimenta inutiles.

Jeunes confrères, si vous avez de petits ennuis dans vos traitements radiculaires, cherchez ailleurs que dans la salive... vous trouverez certainement que votre excès de conscience professionnelle, qui se traduit par des incursions exagérées dans les canaux et l'emploi abusif d'antiseptiques puissants en sont la cause. Ayons toujours présent à l'esprit que nous ne sommes pas les guérisseurs, les vainqueurs de la maladie, mais bien les modestes aides de la bonne Nature . . . qui a mis à côté du mal des moyens de défense sans lesquels nous ne pouvons rien. Lorsque ces moyens sont complètement annihilés notre science est impuissante contre le mal et... il ne nous reste qu'un seul moyen pour soulager nos malades... c'est le baume d'acier.

Paradentoses et Glandes Endocrines

(Odontologie, sept-oct. '39)

par P. LOISIER,

Chef de Clinique à l'Ecole Dentaire de Paris

(Communication présenté à l'ARPA Française, le 18 février 1939)

La place tenue dans les paradentoses par un trouble endocrinien a été depuis longtemps signalée. Dès juin 1907, étudiant dans la *Gazette des Hôpitaux* ce qu'il a appelé "Les petits signes de l'insuffisance thyroïdienne", Léopold Lévi rangeait parmi ceux-ci: *"La Sénilité précoce,* et écrivait . . . On peut opposer au retard du développement la *sénilité précoce,* se traduisant par des *varices,* des *hémorroïdes,* un *développement excessif* des veines des mains, les *télangiectasies cutanées,* de la tendance pour les *dents* à devenir branlantes et à tomber. Sans parler de la *canitie* ea de la *calvitie* précoces."

Il devait, d'ailleurs, insister à de très nombreuses reprises sur ces notions dans le cours de son œuvre et il notait encore en 1911 dans sa *Physio-Pathologie du corps thyroïde*: "On voit donc toute une série de faits dans lesquels les troubles de stomato-gingivite, avec ébranlement et allongement des dents, et pyorrhée alvéolaire (phénomènes qui se confondent avec l'arthritisme dentaire et peut-être la sénilité), sont susceptibles de dépendre d'un état thyroïdien et de s'améliorer par le traitement thyroïdien. Aussi . . . nous les avons rangés parmi les *petits signes* de l'insuffisance thyroïdienne."

Depuis, ces idées furent maintes fois reprises et, tout récemment, dans le très remarquable travail qu'il a consacré au rôle des dysfonctionnements endocriniens dans les paradentoses le Dr Le Norcy pouvait inscrire en tête de ses conclusions: "Nous conclurons que la pyorrhée nous paraît due à un trouble neuro-endocrino-humoral".

Cette conclusion, qui semble de plus en plus, quoique avec des variantes, être celle de la grande majorité des auteurs qui s'intéressent à cette question ou qui, du moins, rentre pour une part, plus ou moins grande, dans leur conception personnelle de l'étiologie de l'affection, pose une problème: celui de l'étude systématique de l'état endocrinien d'un nombre de paradentosiques assez grand pour formuler, sinon des conclusions, du moins pour avoir une base de recherches suffisantes.

Pas plus que nous n'avons même esquissé une étude des glandes endocrines, nous n'envisagerons pas en détail les diverses méthodes de recherches. Ce sera le rôle d'un travail ultérieur plus important que cette courte note.

Il est cependant nécessaire, avant de vous apporter les premiers résultats obtenus, de voir rapidement quelles étaient les méthodes à notre disposition.

Méthodes Exploratrices

Elles seront mono ou pluriglandulaires.

1° *Monoglandulaires*:

a) *Métabolisme basal.*—Pour le corps thyroïde les meilleurs résultats seront encore obtenus par la recherche du métabolisme basal où l'unité de mesure sera fournie par la chaleur dégagée par m^2 de surface du corps, étant entendu que le malade sera au repos complet et à jeun et que la température sera moyenne.

Comme pour certains types de masques à gaz on pourra opérer en circuit ouvert ou fermé. Ouvert, l'expiration de l'air à l'extérieur par les poumons se fera dans un spiromètre et un endiomètre permettra l'analyse de CO_2 et d'O. Fermé, le malade respirera à l'aide d'un réservoir de capacité limitée dont la diminution de volume

donnera la quantité d'O consommée, le CO_2 étant absorbé par de la chaux sodée.

Les chiffres normaux seront d'après Fiessinger:

	10 ans	*10 a 40 ans*	*70 a 80 ans*
Homme	54	40	36
Femme	51	37	33

L'écart normal + 15%.

Dans l'hyperthyroïde on enregistera des écarts en plus allant de 20 à 100% selon la gravité du cas. Dans les pseudo-hyperthyroïdies dues à l'hypertonie sympathique on aura un métabolisme normal. Dans l'hypothyroïdie toujours diminution.

b) *Mesure de l'angle d'impédance.*—Basée sur des travaux de Vigouroux (1878) reprise récemment par Sainton, Lamy et Mme Brazier en Angleterre, cette méthode utilise le fait que la résistance au courant électrique du corps humain diminue parfois considérablement dans le cas de maladie de Basedow.

c) *Recherche de l'indice iodémique.*—Le taux normal étant connu, une élévation nette de ce taux révèlera en général un état hyperthyroïdien et un abaissement, un état d'hypothyroïdie.

Normal	0 mmgr. 11 à 0 mmgr. 13 p. 1.000.
Hyperthyroïdie	0 mmgr. 3 à 0 mmgr. 5 p. 1000.
Hypothyroïdie	0 mmgr. 05 à 0 mmgr. 07 p. 1.000.

d) *Epreuve de Goetsch.*—Après avoir injecté 50 grammes de glucose dans 400 grammes d'eau, on pratique une injection sous-cutanée de 1 milligramme d'adrénaline produisant chez les thyroïdiens des palpitations, une augmentation de la tension artérielle, des tremblements, de la tachycardie, des coliques intestinales et de la glycosurie.

e) *Epreuve de Claude et Baudoin.*—Réaction semblable à la précédente en employant de l'extrait de lobe postérieur d'hypophyse.

f) *Réaction de Reid Hunt.*—"En cas de Basedow, on observe du ralentissement du pouls, et de la glycosurie, et la résistance des souris ayant reçu des produits thyroïdiens à l'intoxication mortelle par l'acéto-nitrile" (Noël Fiessinger).

2° *Pluriglandulaires*

a) *Examen Interférométrique.*—Après les travaux d'Abderhalden et quoique la technique de celui-ci soit abandonnée surtout depuis les travaux de Noël Fiessinger, on continue de penser qu'un "parenchyme en dégénérescence peut engendrer dans la circulation sanguine un ferment de défense spécifique, déceler la présence de ce ferment . . . peut aider le diagnostic clinique" (Noël Fiessinger).

Cette méthode est très délicate, très coûteuse et peut si facilement donner des résultats erronés à la moindre erreur de technique ou influence extérieure, qu'après Noël Fiessinger en 1933, F. Rathery et P. Laurent-Gérard en 1935 et Guy Laroche et Grigaut la même année, contestent fortement sa valeur.

Travaux Originaux

b) *Examen Spectroréductrométrique.*—Méthode ancienne et très simple, basée sur l'étude du temps d'oxydo-réduction de l'hémoglobine *in vivo* après arrêt de la circulation sanguine.

Découverte par Hoppe Seyler en 1862, étudiée successivement par Fumouze en 1870, Stroganoff Vierordt en 1878, Henocque de 1886 à 1894, Guillaume en 1923 qui signale la possibilité de l'utiliser pour pratiquer un métabolisme de base extemporané, elle fut surtout étudiée et mise au point par Dausset et Ferrier qui, utilisant les recherches de Itatseck et Szuperski sur la diathermie du corps thyroïde et les étendant à d'autres glandes endocrines, utilisèrent le fait que le courant d'Arsonval n'amène aucune variation du métabolisme de base sur une glande en équilibre et dans ce cas seulement.

La méthode consistera donc à calculer le temps d'oxydo-réduction de l'hémoglobine chez un malade donné, puis les variations de ce temps après excitation diathermique des diverses glandes endocrines.

C'est cette méthode que nous avons utilisée pour nos recherches dans le service dentaire de la Clinique Chirurgicale de la Salpétrière où le chef de service, M. Hulin, avait bien voulu nous confier malades et instrumentation.

Conclusion

Le nombre de nos observations n'est pas suffisant pour que nous puissons formuler des conclusions définitives, cependant nous pouvons déjà nous faire une opinion que nous formulerons ainsi. Après une cinquantaine d'observations, nous avons la conviction que s'il nous est impossible d'affirmer que les paradentoses soient d'origine endocrinienne, du moins sommes-nous convaincus qu'avec méthode on pourra toujours déceler un trouble endocrinien chez un paradentosique, autant du moins que le mot toujours puisse avoir une signification scientifique.

Le Dr Lafond

Le fait que les numéros de juillet et août sont allés sous presse ensemble, il nous a été impossible de rapporter la mort de notre distingué confrère, le Dr L. Raoul Lafond de Lewiston, Maine.

Le défunt bien connu et honoré par notre Université, a fait honneur à notre profession et particulièrement à ses compatriotes dans son pays d'adoption.

A sa famille nous offrons nos tardives condoléances.

Goitre *

QU'EST-CE QUE LE GOITRE?

Le Goitre est une des plus anciennes maladies connues, elle se rencontre chez les enfants et les adultes, spécialement chez les filles. Cependant ce n'est que dans les vingt dernières années qu'on est parvenu à en connaître la cause exacte et à formuler une méthode pratique de la prévenir.

Le goitre simple consiste en une augmentation de volume de la glande thyroïde qui est située à la face antérieure du cou et qui, normalement, est trop petite pour être visible. Nous sommes parvenus à savoir que cette augmentation de volume est due à un manque d'iode. Le goitre se rencontre plus fréquemment au cours de certaines périodes, comme par exemple, entre les âges de douze à seize ans, pendant la grossesse, aussi soit durant, soit après une infection grave ou chronique.

* Publié par la Metropolitan Life Insurance Company.

La thyroïde a pour fonction de régulariser la croissance et le développement du corps et, dans cette fonction, elle a en de certains moments un fort travail à faire.

Comment Pouvons-Nous Reconnaitre le Goitre?

Cette augmentation de volume de la thyroïde se remarque par un gonflement à la partie antérieure du cou. Si vous vous apercevez d'une bosse à la partie antérieure du cou, soit sur vous-même, soit sur les enfants et que cette bosse monte et descend lorsque vous avalez, vous pouvez soupçonner la présence du goitre. Un prompt traitement guérira la majeure partie des cas, mais tous peuvent être détournés.

Pourquoi Avons-Nous le Goitre?

Les sécrétions de la thyroïde sont indispensables à une croissance et à un développement normaux; l'iode en est la partie la plus importante. Il a été prouvé d'une manière indiscutable qu'en tant que la thyroïde peut avoir la quantité d'iode nécessaire à ses sécrétions, elle ne se dilatera pas et le goitre ne se formera pas; mais si l'iode ne se trouve pas en quantité suffisante dans l'organisme, la thyroïde se dilatera dans ses efforts pour obtenir ce qui lui faut. On a aussi constaté que la quantité d'iode dont la thyroïde a besoin est relativement petite. La connaissance de ces faits a facilité l'adoption de moyens préventifs du goitre dans nombre de villes du Canada, des Etats-Unis et de l'Europe.

Pourquoi Empecher le Goitre?

Le Goitre peut *débiliter l'esprit* aussi bien que le *corps* de l'écolier ou de l'écolière. La croissance normale est retardée, d'où se rencontrent quelque fois les nains et les faibles d'esprit. Si on le laisse grossir il s'en suivra probablement une opération, ou bien le cancer de la thyroïde, soit encore un empoisonnement très grave, ou une très sérieuse condition nerveuse. Ce n'est plus alors le goitre "simple" mais une maladie grave qui peut causer la mort.

Comment Pouvons-Nous Prevenir le Goitre?

Une petite quantité d'iode prise une fois par semaine au cours des périodes dont nous avons déjà parlé, sera efficace à empêcher le goitre. A cet effet, dans les villes qui ont à coeur de prévenir cette maladie, on donne aux enfants fréquentant les écoles une pastille d'iode recouverte de chocolat une fois par semaine. Ces pastilles sont préparées de telle sorte qu'elles n'ont que le goût de chocolat quoique l'iode qu'elles contiennent est à dose suffisante pour empêcher le goitre. Quiconque est atteint de la maladie ne devrait jamais essayer de se soigner sans les conseils du médecin, mais il est de grande importance que chaque famille et chaque établissement d'éducation connaissent et pratiquent constamment les méthodes de prévention si simples et si efficaces contre le goitre, surtout dans les districts où cette maladie est commune.

Le Goitre Peut-il Etre Controle?

Par le fait qu'un médecin, seul, peut dire la différence entre le goitre simple et le goitre toxique et aussi par le fait que l'iode peut parfois empirer la condition d'un goitre empoisonné au lieu de l'améliorer, il est d'une *importance extrême de ne pas se servir d'iode qu'après l'examen du médecin et suivant ses conseils.*

Le goitre se rencontre plus fréquemment chez les filles que chez les garçons, mais il n'y a aucune raison que ni les unes ni les autres n'en soient atteints si l'on a soin de donner à la thyroïde sa quantité suffisante d'iode en prenant, soit à l'école, soit à la maison, la pastille hebdomadaire. Chez la femme, la période de grossesse est la plus précaire puisqu'elle doit suffire à deux thyroïdes. Si toutes les mères se faisaient un devoir de prendre les pastilles d'iode régulièrement à chaque grossesse il y aurait une diminution sensible dans les cas de goitre et les enfants naîtraient avec les thyroïdes normales.

En suivant une méthode aussi pratique que celle-ci le Goitre peut être contrôlé.

Conseils Pratiques

Préparation de l'amalgame de cuivre

Tous les travaux exécutés par la méthode indirecte, et ils sont de plus en plus nombreux, entraînent, pour la confection des moulages, une importante consommation d'amalgame de cuivre au laboratoire. Sa préparation étant relativement simple, on réalisera une économie appréciable en procédant selon les indications ci-dessous:

Le matériel nécessaire se compose de:

Un récipient de verre à ouverture large; une baguette de verre pour mélanger; un petit mortier; de l'acide sulfurique; du mercure; du sulfate de cuivre; des rognures de zinc et un récipient contenant ¾ de litre d'eau.

L'amalgame de cuivre se préparant avec du cuivre fraîchement précipité, on procédera tout d'abord à cette opération. Dans ce but, dissoudre soigneusement 90 gr. de sulfate de cuivre dans ¾ de litre d'eau et y ajouter 40 gr. de rognures de zinc. Mélanger continuellement, pour éviter l'adhésion des particules de cuivre. La précipitation de cuivre est complète lorsque la solution perd sa coloration bleue. On débarrassera alors le récipient du cuivre en excès, on videra l'eau, pour ne conserver que le cuivre précipité, qui est prêt pour servir à la préparation de l'amalgame. Il importe, en effet, nous insistons sur ce point, d'utiliser pour cela du cuivre de précipitation récente, obtenu par le procédé qui vient d'être indiqué.

Sur le cuivre précipité encore humide, verser 40 gouttes d'acide sulfurique chimiquement pur, puis 60 gr. de mercure; agiter le mélange énergiquement jusqu'à ce que l'on obtienne une grosse masse compacte; laver alors immédiatement à l'eau tiède pour éliminer toute trace d'acide: la préparation de l'amalgame est terminée. Il ne reste plus qu'à diviser la masse en petits fragments pour en rendre l'utilisation plus facile.

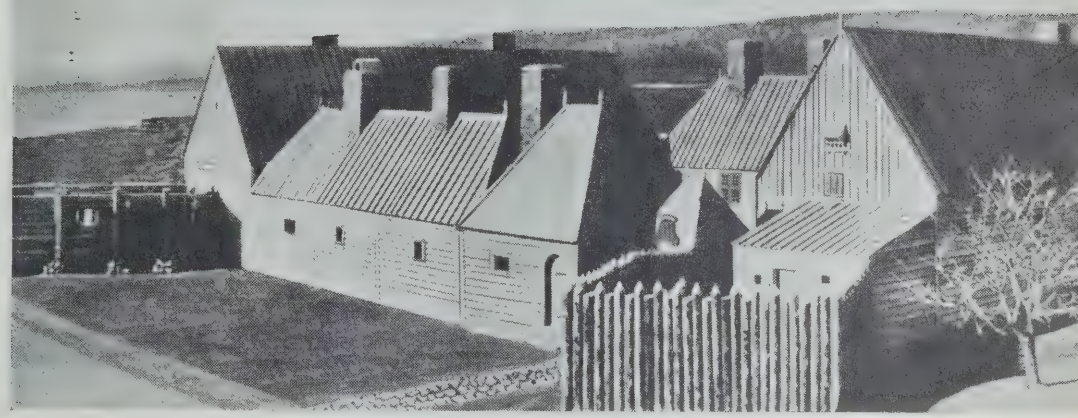
L'amalgame ainsi obtenu durcit complètement en douze heures environ, et ne noircit pas pendant la manipulation. Il est donc parfaitement indiqué pour la préparation des moignons dans la confection des couronnes jacket. Son mode d'emploi est connu: on chauffe la quantité voulue au-dessus de la flamme du Bunsen, dans une petite casserole bien propre réservée exclusivement à cet usage, jusqu'à ce qu'apparaissent les gouttelettes de mercure. On laisse refroidir, et on malaxe dans un mortier. Si l'on désire accélérer le durcissement, on exprime l'excédent de mercure dans une peau de chamois; si, au contraire, on veut de l'amalgame mou, on ajoute du mercure en pilonnant soigneusement.

(Dr. E. Benedetti, *Protesis*, déc. 1939).

Pour enlever les taches de mercure sur les couronnes en or

Monter un petit disque de feutre sur la pièce à main et l'induire de rouge à polir. Appliquer sur la tache et faire tourner très vite. La chaleur produite par l'action mécanique du frottement fait disparaître le mercure, en même temps que la surface traitée devient brillante du fait du rouge à polir.

(Dr. E. Benedetti, *Protesis*, déc. 1939).



Courtesy of the National Parks Bureau of the Federal Government of Canada.

Port Royal Habitation

Three hundred and thirty-six years ago a party of French explorers arrived at Port Royal, Nova Scotia, in the Bay of Fundy and built what was then known as the Habitation.

Many "firsts" in our history date from this colony, such as the first permanent settlement of Europeans on this continent north of the Spanish settlements; first play enacted north of the Spanish settlements, "Neptune's Theatre"; first social club in North America, organized by Champlain, the Order of Good Time (l'Ordre de Bon Temps) in 1606; first recorded baptism in Canada, an old Indian chief and twenty-one members of his family; first gardening, grain growing, grist mill and water-power in Canada.

After the capture and destruction of the Habitation by Captain Argall in 1613, Port Royal and Acadia became a British possession.

This quaint old Habitation has been recently restored with all its old world charm and even old world atmosphere. Visitors are carried back to the days of Champlain, Poutrincourt and Lescarbot. One must see it to understand.

I wish those people who tell us that Christianity won't work would be kind enough to tell us what will. Moreover, how do they know that it won't? You cannot say anything is a failure until it has been tried. When was Christianity last tried? G. K. Chesterton stated an important truth when he wrote, "Christianity has not been tried and found wanting: it has been found hard and not tried." No man yet has tried out Christ-centred Christianity in his own life and not found to work: and no nation that makes the experiment will find it fail either.—The Rev. S. J. Marriot, Canon of Westminster, in a recent broadcast, per Medley.

Portrait by Paul Horsdal, Ottawa.

MAJOR IRA W. HAMILTON, D.D.S.,
Ottawa, Ontario.

President of the Ontario Dental Association.

Past President of the Ottawa Dental Society.

Chairman of the Canadian Dental Corps Committee of the Canadian Dental Association prior to enlistment in the present war.

Member of the C.A.D.C. from 1915 to 1918, serving latterly in the Central Laboratory in France.

Now in England in charge of organizing and directing the technical services of the 1st Divisional Dental Company.

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The Treatment of Fractures of the Jaws

by FULTON RISDON, M.B., F.R.C.S. (C.), D.D.S., Toronto, Ontario

THERE are many published methods for the treatment of fractures of the upper and lower jaws. I am convinced, however, that if one method is well understood and used where indicated, it is more advantageous than attempting to use many methods indifferently. For years I found I was using a combination of two or three methods, none of which were completely satisfactory, but about four years ago I decided to attempt an original method, and since that time have used it in about ninety-five per cent of my cases. I subsequently found that it could be used for fractures of the maxilla as well as for fractures of the mandible. I will attempt to briefly outline this type of treatment and supplement it with photographs which show the method applied, as well as x-rays of the splint in situ. Some exceptions may be taken to this method as it is necessary to approximate the maxilla to the mandible, but I prefer this type of reduction where most of the teeth are present in the maxilla and mandible. There are others who prefer the so-called open method, but the treatment I am attempting to outline may be modified to suit the individual operator, although that may add to the expense. While considering expense, I might add that this is possibly the most economical way of treating a fracture, and every operator must expect to treat many patients who are limited financially. That is a further argument for the adoption of this simple method.

I will attempt to describe the technique of applying this splint, assisted by photographs. In photograph No. 1 a piece of coarse Angle orthodontia wire, fourteen inches long, is placed around the upper right second molar below the contact point, with equal lengths of the wire projecting from the mouth, and twisted tightly around the second molar. This first twist is important as the wire must fit snugly around the cervical border of the tooth. Then the wire is twisted on itself and carried forward distal to the right central. The same technique is practised on the upper left side, and the two twisted wires are then twisted together in the centre line. The same procedure is carried out for the mandible, namely, a wire is placed around a molar tooth, brought out equal lengths and then tightened on the molar tooth and twisted on itself to the centre line, where it meets the wire from the opposite side and these in turn are twisted together in the centre line.

In Photograph No. 2, an attempt is made to show that each tooth is now wired to the wire arch. For the sake of clarity, the projecting wires around each tooth are shown projecting downward, while in fact they are placed upward and

Figure 1

Figure 2

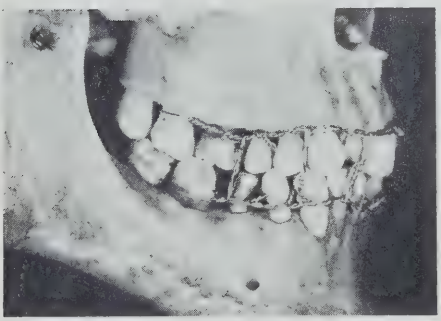

Figure 3

pressed beneath the twisted wires to reduce any irritation.

In Photograph No. 3, the interdental wiring is shown, and it may be necessary to use three interdental wires on each side, that is six altogether. If it is necessary to take up the so-called slack, by that we may mean a fracture in the mandible between the two bicuspids, all that is necessary is to twist the wire in the centre line and by so doing the fragments are brought closer together. It is obvious that occlusion is the guide for correction. The operator may modify this technique, by using the interdental wires as suggested for ten days, and then make a cast appliance to fit over the lower teeth, as outlined earlier, but that increases the expense. Generally speaking, if a fracture is seen early, the immobilization period may be only three weeks. Photograph No. 4, shows the splint in position. The x-ray of the mandible has

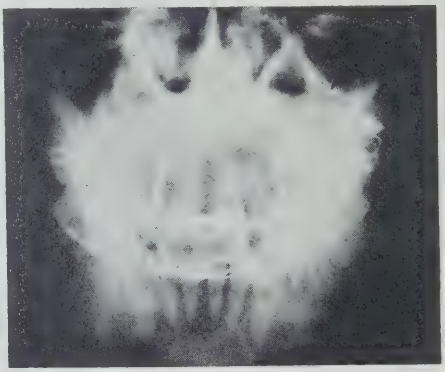

Figure 4

Figure 5

Figure 6

been burned out slightly, but the splint is still shown.

To supplement the method outlined above, where teeth are missing, circumferential wiring may be used. This method is shown in Photographs No. 5, 6, 7. In most cases the lower denture may be utilized as indicated in the photographs. Otherwise a piece of lead may be moulded and used for this purpose. Small incisions are made beneath the chin

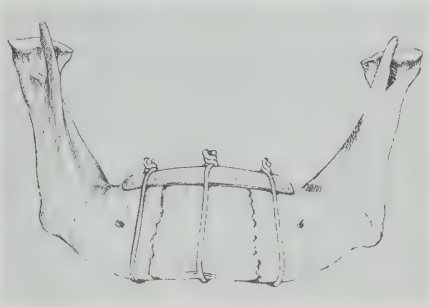

Figure 7

in three areas and wires passed anterior and posterior to the mandible and then tightened within the mouth. This may be worn for three or four weeks.

A Periodontal Aspect of Caries Immunity *

by HAROLD KEITH BOX, D.D.S., Ph.D., Toronto, Ontario

General Manifestations of Immunity to Dental Caries

THAT the external and internal coatings of the body furnish a mechanical defense against bacterial invasion is well known. The unbroken skin forms an effective protection against bacteria, and the mucous membrane, while not the equal of the skin, is nevertheless a fairly resistant agent. This is especially true of the unbroken mucous membrane of the oral cavity.

The enamel, a cuticular production of epithelial origin is the main protection of the dentine and dental pulp. It, in turn, is protected by two membranes or cuticles. The first or inner cuticle which is the final product of the ameloblasts, when calcified is indistinguishable from the enamel proper. According to Orban[1] it is no more resistant to acids or alkalis than the enamel itself. Maximow and Bloom[2] have stated that this membrane is "somewhat more resistant to acid than the rest of the enamel as it contains less calcium." According to Bennett[3], Thewlis, working in the National Physical Laboratory of London, has demonstrated "that there is a radiographically dense skin of enamel over the outer surface." The second or outer cuticle is a keratinous

* This is study No. 12 in the book just published by Dr. Box, entitled "Twelve Periodontal Studies."

membrane which ordinarily is largely worn off in adult life. Orban has stated that "frequently the secondary cuticle is not formed."

In dental caries, certain conditions prevail which apparently favour the colonization of acid-forming bacteria on the tooth surface and the production of acid under circumstances that enable it to initiate the caries process. The factors that tend to inhibit the establishment of these conditions necessary to the inception of caries constitute what, in a broad sense, may be termed immunity to this disease.

In an examination of the teeth in British Neolithic skeletons discovered at Coldrum, Kent, Cameron[4] was unable to detect a single case of caries. Here is exemplified a type of natural immunity that may be termed absolute. And, individuals are occasionally seen in practice, who, living under modern conditions present the same state of immunity. Nowhere on the surfaces of the teeth are the microorganisms associated with caries permitted to maintain themselves under conditions suitable for the production of their deleterious effects on the enamel, nor do acids from other sources attack the enamel surfaces.

In other groups of people and individuals, the natural immunity is relative, that is to say, it has limitations. In a previous paper, it was stated that the skeletal remains of Neanderthal man showed no evidence of dental caries.[5] It is known, however, that man was afflicted with caries in very early times. Recently, on the authority of Baege of Berlin, it is stated that dental caries occurred here and there in a scattered manner as early as the Mesolithic age. Increasing in frequency, at the termination of the Neolithic age, it is said to have reached modern proportions.

It must be pointed out, nevertheless, that wide variations in their susceptibility to dental caries have existed and still exist among different primitive peoples. According to the findings of Mummery[6] in the Eskimos, one case was found in 69 skulls. In 1939, on the Eastern Arctic Expedition, in an examination of Eskimos living close to their natural conditions, Williams* found an absolute immunity to dental caries. White flour, white sugar, baking powder and tea made up not more than five to ten per cent. of their total diet. In 51 nomad Eskimos in small groups available at the trading posts, 1418 teeth were examined and no carious cavities found. Mummery found caries in 24 out of 60 skulls from long barrows in Wiltshire, the burials in all probability belonging to Neolithic times in England. And according to Keith[7] the teeth of Rhodesian man (one specimen) discovered in the Broken Hill mine, Northern Rhodesia, in a filled-up cave, were ravaged by caries.

The investigations of Osborn and Noriskin[8] show that the South African Bantu is relatively immune to caries, while living in the primitive manner of the kraal native. In an examination of pre-historic Bantu skulls, 40 in number, out of 749 teeth, 31 were carious. These investigators have estimated the percentage of primitive kraal natives with caries as ranging from twenty to thirty per cent. They regard this as a small matter as compared to the great susceptibility to caries of the teeth of the Bantu under civilized conditions.

It is commonly understood that the teeth of the Eskimo show a marked susceptibility to dental caries under environmental conditions common to the trading post. Williams, in an examination of 10 Eskimos living at the posts either as employees or children of em-

* C. H. M. Williams, D.D.S., B.Sc. (Dent.), Associate Professor of Periodontology, Faculty of Dentistry, University of Toronto.

ployees of the white men, found 39 carious cavities in 262 teeth. White flour, white sugar, baking powder and tea comprised about twenty-five to thirty per cent. of their diet.

The general observations of the dental profession would seem to confirm the viewpoint that in certain mouths hitherto relatively immune to caries, there is manifested a state of marked susceptibility and which is frequently of a more or less temporary nature. For example, it is commonly believed that in pregnancy there is, as a rule, a greatly increased predisposition to caries.

It is of great interest to note that Graham[9] in a study of the reaction of the salivas from the different salivary glands proper in 31 pregnant women, found 81 per cent. of the glands secreting saliva at the mouth of the ducts acid in reaction. In a married control group of 31 women, the percentage of glands secreting acid saliva dropped to 50, while in an unmarried control group of 31, only 39 per cent. of the glands showed saliva acid in reaction.

It has been stated also that following continued fevers, where the saliva has been noticeably sparse in amount for some time, a period of greatly increased susceptibility to caries frequently follows. In mouths that have manifested a marked tendency to caries, it has been observed also that changes take place which bring about a state of relatively increased immunity.

Local Manifestations of Immunity

(a) All teeth are not equally prone to caries.

According to the figures of Scheff[10] out of 1000 carious teeth, 647 were found in the upper jaw and 353 in the lower jaw. Also, in an analysis made by Wallis and Pare[11] of the relative frequency of caries in over 10,000 extractions, it was revealed that the upper teeth, with the exception of the second and third molars, as compared to the lowers, showed definitely a greater disposition to caries.

It is a matter of common observation, as has been pointed out by the writer,[12] that in a great many mouths the lower anterior teeth exhibit a marked immunity to caries, cervical and proximal. Certain environmental conditions peculiar to this region evidently prevent, in some manner, the initiation of caries on these tooth surfaces.

It has been shown previously that frequently the lower anterior region of the oral vestibule is under the dominance of alkaline or neutral saliva, in spite of the fact that the parotid saliva may be acid in reaction. This is due to the existence of an alkaline reaction in the mandibular saliva which influences the prevailing acid reaction of the vestibule in the lower anterior region.

(b) All tooth surfaces are not equally susceptible.

It has often been stated that the general regions on the tooth surfaces that are prone to caries are three in number, viz: in pits and fissures; on proximal surfaces under the contact point; and on lateral and buccal surfaces near the gingival line.

The lingual surfaces of the teeth are not commonly attacked by cervical caries, which in the main, is a lesion of the oral vestibule. Cervical caries rarely invades the gingival crevice. The caries process seldom, if ever, begins on the tooth surface under the gingival margin.

It has been stated by some writers that proximal and cervical caries occurs on surfaces that fail to be scoured by the passing over of food in these localities. This is apparently true under certain conditions when a state of general susceptibility to caries exists in the individual. However, it must be pointed out that many cases are to be observed where caries fails to be initiated on poorly

cleansed proximal and cervical tooth surfaces, i.e. surfaces that show the presence of a soft, adhesive material by revealing stain or other test.

The Problem of Certain Factors Concerned in Caries Immunity

(a) Periodontal conditions that seem to protect against caries.

Cases are frequently encountered where the tooth surfaces are in an unclean condition and no sign of the caries process is to be observed with the magnifying glass when the surfaces are cleansed. The portions of the enamel surface that tend to be unscoured, e.g. the gingival third of the labial and buccal surfaces, and occasionally the remaining surface as well, are covered with a slippery, glutinous coating. Good examples of this condition are to be observed on the disuse side in cases where there is masticatory function on one side only. This viscous deposit contains desquamated epithelial cells, leucocytes, mucus, and other protein bodies. As Wallace [13] has pointed out, these are continually being shed into the buccal cavity. According to the writer's tests, these deposits are almost invariably alkaline in reaction. This coating, as would be expected, is commonly found in cases of chronic gingival inflammation and periodontal disease. The albuminous material forming this layer apparently constitutes a suitable medium for certain bacteria that are not acid-forming, hence the freedom from decalcification of the enamel surface as revealed on the removal of the debris. That this coating is protective in nature is attested to by the fact that when it is artificially kept brushed away, caries, in many cases, soon makes its appearance. The writer feels sure that every periodontist has observed this phenomenon. Noyes[14] has pointed out that "caries shows the greatest intensity in comparatively clean mouths," and Wallace[15] has observed that "the ill-cared-for and dirty mouths of hospital patients may be remarkably free from dental caries."

Examples of decalcifications of the surface enamel are encountered which at the time of examination are still in the early stages. At the same time, they are of long standing. These decalcified defects are found, on clinical examination, to be covered with a thin, slippery coating or film. This coating is mainly confined to these whitened areas and is found to be alkaline in reaction. On microscopic examination of smears made from these regions, this glutinous material was found to be largely comprised of leucocytes and epithelial cells. The writer looks upon the presence of these films as constituting a "passive" phase in the caries process. The "active" phase of the lesions of incipient caries is essentially one of acid production on the enamel surface through the action of microorganisms on carbohydrate material. The acids are so protected from the saliva that sufficient intensity is achieved to produce decalcification. For the "active" phase to be continuous, it is plain that the carbohydrate content of the plaque or debris must be restored almost constantly. Otherwise on depletion of the carbohydrate supply, the acidogenic bacteria find the changed medium unsuitable for their cultural conditions and fail to proliferate.

It has been observed that caries, once established, is usually slow in progression on the occlusal surfaces of non-functioning teeth. This has been ascribed to the failure of periodic replenishment of the carbohydrate content of the crevices and grooves, as stagnation is present in these regions. That the grooves of non-functioning occlusal surfaces frequently become filled with a hard calcified material is well known. Apparently the stagnant debris, through development of an alkaline reaction and

with seepage of saliva, becomes the matrix for precipitated calcium salts, and calculus is thereby formed. This is opposed to the caries process (Miller).

Black[16] called attention, over fifty years ago, to the clinical observation that the presence of pus is preventive of caries. He has stated that decay in a cavity ceases if pus is continually discharged into it, e.g: a chronic alveolar abscess discharging through the pulp canal. Root surfaces that are exposed, either through eruption or recession, or where the crowns have been lost, seldom are attacked by caries in an environment of gingival pus production.

It also has been referred to previously that the tooth surfaces in the gingival crevices show a pronounced freedom from caries attack. In hundreds of tests, it has been found that the gingival crevice is usually slightly alkaline in reaction.

It is to be noted that in these protective conditions—the glutinous coating, the presence of pus, and the crevice contents—there appears to be one common factor, viz: alkalinity of reaction. While this factor may not be the sole, or even the principal agency of protection against caries in these conditions, nevertheless it would appear to play a part.

(b) The suggestion of another protective mechanism on the tooth surface.

(1) Enamel protection in an acid saliva-bread mixture*.

When a tooth is suspended in a saliva-bread mixture, incubated for three or four days at 37° C. no evidence of decalcification of the enamel is manifested. On the other hand, a tooth suspended in a fermenting bread mixture to which no saliva has been added, and under the same conditions of time and temperature, shows definite evidence of decalcification of the enamel surface. The reaction of the mixture in each case becomes fairly acid, i.e. about pH 4.5 in a few hours. It seems apparent that in the first instance where the saliva is present some protective factor is operative and which is absent in the second case. This is not to say, however, that the value of this protective mechanism is equal in all salivas.

(2) When a tooth is suspended in a weak solution of HC1 to which a small amount of sodium oleate has been added, the pH being approximately 4.5, the enamel surface shows no decalcification for some days. A tooth suspended in a weak solution of HC1, with a reaction of approximately pH 4.5 shows evidence on the enamel surface of the process of decalcification in a few hours.*

It was pointed out in a recent bulletin[17] that teeth suspended in a buffered solution pH 5.0, without the addition of sodium oleate showed marked decalcification of the enamel surface in 24 hours. Here also it was shown that the addition of sodium oleate to the same buffered solution protected the enamel surface from attack for several days. As the soaps of the higher fatty acids can not exist in solutions under pH 9.0, it seemed probable that the sodium oleate dissociated, leaving a film of oleic acid on the teeth in question. Subsequent examination showed this to be the case.

(3) Teeth dipped in oleic acid, and suspended in a weak HC1 solution and a buffered solution pH 5.0, were then found to exhibit the same protection against decalcification as in the former experiments where sodium oleate was used.*

These findings suggested the possibility that the production, in some manner, of higher fatty acid films or emulsions on the enamel surfaces of the teeth suspended in the saliva-bread mixture, ac-

* These experiments were carried out by Mr. A. F. Fenton, Research Technician, Department of Periodontology, University of Toronto.

counted for the protection of these surfaces against decalcification. It is well known that starch is comprised mainly of two distinct fractions termed amylose and amylopectin. It was of great interest to learn that amylopectin shows a tendency to esterification, and Ruhland and Wolf[18] point out that "in the seeds of cereals, it is esterified with palmitic, oleic and linolic acids." Taylor and Sherman[19] were able to split up this ester by the action of lipase-free amylase, as well as by acids and bases. They found, for example, the fatty acid content of whole corn starch to be 0.73 per cent. The amylopectin fraction of corn starch yielded approximately 4 per cent of fatty acids. It therefore seems reasonable to assume that, in the saliva-bread mixture previously described, the salivary liquefying amylase liberated the higher fatty acids of the cereal starch, and that this mechanism occurs in the oral cavity.

From experiments carried out in our laboratory, the evidence points to wide variations in the amounts of higher fatty acids liberated by equal amounts of different salivas, and of the same saliva at different times. And the amount of higher fatty acids produced appear to be in direct ratio to the activity of the liquefying amylase described in a previous bulletin[20]. A deficiency of this protective material on the tooth surfaces would seem to be related to the extent of the caries attack in an individual mouth. In other words, adequate production of fatty acid films or emulsions on the teeth would seem to give protection more or less generally, and to limit the process of caries, when initiated, to regions dominated by peculiar local conditions.

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A judge was once called upon to settle a dispute between two brothers about an inheritance of land. Said the wise old judge, "Let one brother divide the land and let the other brother have first choice."—Guy Morrison in "Legal Chatter."

Practical Procedures in Dental Health Guidance *

by MARY MIKALONIS, Dental Hygienist, Milwaukee, Wisconsin

DENTAL health guidance is the art of developing a wholesome, receptive and co-operative attitude toward dentistry and dental health practices and by this means create an effective scheme for healthful living. Dental health guidance is more than dental health education in that it not only disseminates health knowledge, but also strives to encourage into everyday living a lifelong philosophy of healthful behaviourisms whereby general health is increased as the mouth is an index to the whole body. Dental health guidance today must be acknowledged as the birthright of every child, the privilege of every adult, and the responsibility of those entrusted with the practice of dentistry.

The need for dental health guidance is becoming more evident each day. For example: many dentists, school authorities and parents feel that the child has a right to look to the school for dental health service by providing him with a free prophylaxis and examination, and to educate him in how and when the teeth should be brushed. Is this dental health guidance? No, it is dental health education because in dental health guidance we must not teach the child to depend upon a type of free service that is to be denied him when he has graduated from or left the school. Therefore, the objectives of dental health guidance should be such procedures as would motivate the individual from early childhood throughout life to look to the dentist for dental health knowledge and service because true guidance is not concerned primarily with childhood health patterns, but in establishing life lasting health practices and habits.

It is not to be assumed that dental health education is not important, but rather that dental health guidance is a more purposeful activity, aiming at the particular needs of the individual and real life situations. In a discussion on periodic medical care versus periodic dental care, some interesting facts were brought out which can be used as favourable arguments for the paramount value of true guidance in matters pertaining to dental health. They are as follows: "(1) many persons throughout life require little or no medical care and practically everybody requires dental health service; (2) unlike other diseases, dental disease does not correct itself and uncorrected dental disorders become progressively worse; (3) dental disease is recurrent and there are no known preventives like serums, vaccines, etc.; (4) the correction of dental disorders always requires the services of a dentist; and (5) child dental health service differs markedly from adult dental health service."[16]

Dental health guidance should be given in a balanced co-operative program of health activity in the home, the school and the dental office by placing emphasis on wholesome actual everyday living, life expectancies and life experiences. The responsibility for dental health guidance rests upon the shoulders of the dental profession and its allied workers because the school supplements the home training and because home training in mouth

* Read before the Academy of Dentistry, Toronto.

health usually begins with the first visit to the private dental office. Dental health workers know that dental health guidance, like dental health education, has two avenues of approach: the adult and the child.[4] Therefore, the profession must strive to guide both the adult and the child because what effects one will influence the health practices of the other. This type of individualization program must do more than tell people facts. It should strive to understand the nature and needs of individuals and guide them to desire improvements in their health conduct.

The motivating devices to stimulate action should be absolutely free of faddism and we might copy the policies of science to overcome bias by using knowledge of facts only; by illuminating these facts through the citation of controlled experiments; and by pooling the results of different investigators and authorities on the subject.

Let us look for a moment at the problem of dental caries and how the policy to overcome bias may be attacked. According to the recent publication on the causes of dental caries issued by the American Dental Association, some 195 summaries are advanced for its inception. Many of the theories are substantiated by referring to experiments in controlled diet, enzyme balance, operative intervention and calcium deficiencies. If you attempt to pool the results of the outstanding investigators like those at your own University of Toronto, the Forsyth Dental Infirmary for Children, the University of Michigan and others, you will be forced to conclude that very little is known as to the real cause of dental caries. Therefore, it will be necessary to guide an individual to understand that there are many theories advanced for dental decay and that for anyone to say decay is the results of one factor is misleading and not conducive to the goodwill of the profession. We must always strive to be honest in our guiding philosophies as human nature is so constituted that a 'will to believe' predominates until we have destroyed that will through lack of confidence. We might also cite here the example of the correct technique for brushing of the teeth and as to whether we should guide the individual to adopt the Charters, the McCall, the Stillman or the Hirschfeld methods. And here, again, especially in adult life, the method utilized must be best suited to the individual case and is the outcome of understanding the individual's needs.

The question may rightfully be asked; "How can any teacher or individual who is not trained in the theories and practices of dentistry adequately guide anyone in matters pertaining to dental health and the best procedures to follow in order to maintain mouth health? It is apparent to most of us that dental health guides must be workers trained in dentistry such as the dentist, the dental hygienist, the dental nurse and to some degree the dental assistant.

Some educators claim that dentists or their allied workers are not formally trained to guide or even teach health practices because they do not possess a degree in education. On the other hand, I have heard other educators, equally outstanding, remark that a teacher is born and not made, and that people go to college to get a degree but obtain their education through work or the practical school of experience. It is unfortunate that traditionally, we have been conditioned to think of education as something that is received from books and the individual who possesses a degree is the only qualified person to guide. If the psychologist's theory that "dentists are a superior lot" and that "it takes more than an I.Q. of 100 to graduate from a dental school" is correct, it seems plausible to say that every dentist is qualified to skilfully

master the educational philosophies necessary for dental health guidance.[7] Fortunately, the motivating devices used for dental health guidance cannot be gained from books, but springs from the individual's life situation as health practices are more than a subject to be expounded by educational theorists. It is not enough to aim at current living. We must protect the distant adult future.

Successful Dental Health Guide

The marks of a successful dental health guide can be summed up in the following three qualifications: (1) knowing the facts of dental health very well and at the same time possessing a desire to keep up an advanced study of it; (2) understanding human nature and how to influence the individual's adjustment at all ages of life; and (3) a determination to acquire a vital pattern of life that stimulates you and indirectly the person you are striving to guide. These basic qualities can be acquired by any dental health worker who has the 'will to learn.'

Since the greatest responsibility for dental health guidance rests upon the shoulders of the dentist in private practice, every practitioner should aim to guide the patients to healthy attitudes toward dentistry, to understand the economy of early periodic care, to appreciate the value of a clean mouth, to establish the desired habits for home care, to recognize the need for properly selected toothbrushes for each individual and how to select a safe dentifrice, and to instil belief in prevention through the disseminating knowledge on the growth and development of the teeth, the effects of pernicious habits and how operative intervention is effective in arresting dental decay. This type of guidance is not done during one visit, but is a lifelong procedure beginning around the age of three. It is given during every contact with dentistry, directly or indirectly, "by kindness, by watching, by warning, by precept and by praise, but above all—by example."[5]

The success of dental health guidance is the realization of planned outcomes. A patient's response effects not only himself, but every individual in that home and often kindles the imagination of others by relating his experiences in your office. While it is true that an adult and a child present a different problem, I sincerely believe that the dentist or dental health worker who can intelligently guide children will encounter little or no difficulty with adults as the adults' interest is more easily aroused. However, attention steps are essential in every case and no canned procedure can be outlined for all individuals.[3] The attention step may be either the patient's mouth, your own mouth, the situation at hand such as a prophylaxis, Roentgen rays, models and charts, or any of the many operative procedures. We must remember that by nature individuals are primarily interested in themselves and that the most effective attention step is always the patient's own condition. The positive method of familiarizing the patient with the benefits of dental health takes precedence over negativism and the routine of giving the patient a prophylaxis at the initial visit should always be practiced. It is also important to remember that a mistake in handling a child is much more disastrous than a mistake with an adult, and whereas formerly we told fairy stories to interest children in dentistry, we are now dealing with actual life situations of the children themselves.

Home Care

Children around the age of three provide an ideal subject for effective guidance as their personalities are most pliable and as a result their health attitudes can be moulded more easily.[12] When dealing with children, our word picture should be so vital that the child will form a mental dramatization of what has occur-

red during the guidance period on dental health and understands why it is important to him. This objective lesson in home care must be presented in a simple, concise manner preferably by the operator following a prophylaxis and should stress the specific factors in which the child has failed without saying so. These factors are concluded through observation by surveying the mouth for masticating habits to ascertain whether the child chews on both sides, the occlusion to detect any malformations which may be due to a pernicious habit, and the degree of home care to determine what areas are missed in the toothbrushing. The health practices which the child has been subjected to can be determined by the question and answer method either from the child or through the co-operation of the mother; and those which might warrant a compliment must not be overlooked as praise is always more effective than censure.

The first lesson on home care of the mouth should include: general health habits, brushing habits and the importance of periodic care. Unless we have given the patient a thorough prophylaxis, our emphasis on periodic care is of no value and tends to destroy all guidance given previously. We must plan our guidance scheme to fit the age of the child and to the age in which we are living, with the hope of brightening the child's interest in dental health. The parent should be invited into the room to listen to your guidance message as you can indirectly measure its success by the parent's reaction and thereby, educate yourself to the most effective measures in guidance. Then, too, the parent's presence is important because dental health guidance for children is never effective unless the parent and the dental health worker have a common objective.

The Toothbrush

Be specific in what type and how many brushes you want your patients to use. Tell them about the size, the tufts, the number of rows, the hardness of the bristle and for children go so far as to suggest the colour of the handles for each brushing. Show the patients how to use the brush effectively and how to cleanse the most posterior areas of the mouth, tell them why the method suggested will be effective in their mouth and how to care for the brush when not in use. Make the faults you want to correct seem easy to correct, make the things you want them to do seem easy to do and above all make the person happy about the things you suggest. These are some of the essentials for successful guidance.

The question is often asked: "What type of toothbrush is most effective and practical for children?" It is well to stress the fact that no universal style of toothbrush can be suggested for all children, but the most suitable types for the various ages are as follows: For the children up to four years of age, the single row brush with from six to eight well-spaced tufts of bristles is most practical, as the child is less likely to object to the brushing procedure; for the child between the ages of four and twelve, the regular two row junior brush is advised; and for the child from twelve upwards, it is well to consider the posterior growth of the jaws before prescribing a brush because many mouths cannot accommodate the use of the two row adult's size effectively. Very often it is wise to continue the use of the junior toothbrush and when the change to an adult size is made, it should be done in this manner—two junior and one adult; then, one junior and two adult; and finally, all adult size toothbrushes.

Under ordinary conditions, the method for brushing the teeth of children is to brush the upper teeth down and the lower teeth up. Personally, I like to show the child the exact technique by brushing my own teeth in the manner suggested to

them. If the child is guided to start with a dry brush, to begin on the area that is in greatest need of home care, and to count the number of strokes given each tooth, we are usually assured of better results. A basis for determining the number of strokes to be given each tooth may be the age of the child. This procedure is effective for children from five to about nine years of age and during this four year period much good can be accomplished as exactness later becomes an unconscious habit or health practice. After the teeth are all brushed in the prescribed manner with a dry brush, it is then suggested that the brushing procedure be repeated using a safe dentifrice at this time.

The care of the toothbrush should always be included in your first guidance contacts with a patient in private practice. To date, the only logical method for the treatment of the toothbrush is to leave it exposed to the light and air until it is thoroughly dry because the germs that grow in the mouth grow in moisture and darkness. This suggestion will immediately awaken the germ phobia individual and, especially, the parents; and most patients will quickly discard the incubator type of toothbrush holder.

Every child through a co-operative understanding between the dental health worker, his parent and himself should be guided to brush the teeth after breakfast, after lunch and before going to bed. The night brushing for young children should be carefully and thoroughly done by the parent or nurse as the teeth will remain clean until the child has his breakfast. The mistake often made by mothers is that of guiding their children to brush their teeth before breakfast and these mothers are often reluctant about changing this practice. However, if the dental health worker will take the time to explain that if the teeth are thoroughly brushed before retiring, the before breakfast brushing is unnecessary and that you would like their child to brush his teeth after breakfast because this health practice will keep the teeth clean until lunch. And that as a dental health worker you are interested in guiding their child to practise the right dental health habits early in the life of the child and early in the life of the tooth.

After the eruption of the first permanent molars, the general consensus of opinion among the laity, is that if the mouth is opened wide during the brushing procedure, the tooth will be well cleansed. That is a great fallacy because the contraction of the muscles tends to force the brush mesially leaving the most posterior areas unkempt. Therefore, the child should be guided to close slightly when brushing the most posterior teeth.

How to Talk to Children

A word or two about how to talk to children may not be amiss. First, attract attention by showing some object or by asking a question; second, give an inspiring message; third, be sincere and interested in what you are doing; fourth, avoid relating unpleasant experiences; five, relate all you have to say directly to the child even though there are grown-ups in the room; six, use a language understandable to the child or teach him something new; and seven, stress only one main point during your guidance message.

Today, the sample toothpaste and chewing gum hand-out to children upon a visit to the dental office is taboo and degrading to the profession. Professional people should be very cautious as to what constitutes an appropriate and effective reward in dentistry. Personally, I feel that there is a difference between a reward and recognition of effort. Dental health workers should aim to recognize effort through human interest, consideration, kindness and through supplementary literature even though reading leaves only

a vague impression upon young minds. Dental health literature for children should depict some vital factors in rightful living, be free from all tinges of commercialism and use methods endorsed by official health organizations.

Health Guidance

A dental health guidance program in the school can only be effective by developing in each child a sense of personal responsibility to maintain a healthy mouth. The objectives of most dental health programs indicate the degree to which that school system is conscious of the need for mouth health. Clinical dental health service in the school should never be inaugurated as an end of the program, as guidance toward future living is important.

Since health instruction is essentially a study of the processes of life and since a healthy body is more desirable than a trained mind, adequate health guidance should be the forerunner of all knowledge. The objectives for a dental guidance program should be to guide: (1) all children to eat foods which will build sound teeth and maintain general health; (2) all mouths to be free from decayed, abscessed or stained teeth; (3) all children to brush their teeth with their own toothbrushes; (4) all children to have periodic dental care by their chosen dentist; and (5) all health practices to involve not only health habits, but all skills related to the preservation of life. Therefore, dental health guidance in the school is but a part of the great mass of educational stimuli to which a child is subjected in order that he may better understand his immediate environment and be prepared to meet future problems.

There are several methods for presenting dental health guidance to children in our schools. A most effective procedure is by the project or Socratic method where the children do the purposing, planning, executing and judging. Then 'the learn by doing' method which aims at real everyday life and life situation is always desirable; and for toothbrushing, the skill lesson is preferable as most children will accede to the 'you show me and I will try' procedure such as we have in art, physical education, manual training, etc.

The present favourable attitude of the New York Education Department toward health education and dental health guidance can be expressed by quoting from a recent bulletin of that department. "Assuming that growth is the ultimate aim of education, we should set up objectives which will satisfy the conditions of growth. The first requisite of growth is health. Therefore, health should be the first in our list of guidance objectives. The health guidance curriculum should be based on the underlying philosophy that health is a way of living—mentally, emotionally, socially and physically— and as such should not be handled as a special subject, but should grow out of and be a part of all child experiences in the home, school and community." These experiences should be planned and executed by a dental health worker through the co-operation of the dental profession and the school authorities with a hope of stimulating the pupils' desire to know more.

Visual Aids

In planning and executing a dental health guidance program in the school, the value of visual aids such as posters, slogans, lantern slides and movies must not be overlooked as visual memories predominate and the seeing experience is a very effective guidance device. However, all visual devices must be free from commercialism and those that are most effective are usually made by the pupils themselves under the direction of the dental health worker. The teaching - learning effectiveness of slogans and posters or

special feature programs carefully planned with lantern slides by the dental health worker cannot be over-estimated. These procedures do not involve expensive materials, such as those required for movies which soon become outmoded, and can spring from the life situations of the children themselves.

Any alert dental health worker can make interesting lantern slides without the aid of photography. Simple sketches can be made on ground glass lantern slide plates with either pencil, ink or lantern slide crayons. Material typewritten on cellophane (cellophane is inserted between a double carbon) can be placed between two lantern slide cover glasses and presented to the class with an attention step like a silhouette of a child brushing his teeth. Roentgen ray films can also be used by cutting a window in black paper of lantern slide size, the size of the film and then binding the film in the mask between two lantern slide cover glasses. However, in schools where photographic facilities are available, the dental health worker has many fine opportunities for presenting original guidance material which will project the child forward upon a high level of performance throughout his adult years.

Dental health guidance in a community is a privilege that the organized dental profession should take advantage of. Radio programs judiciously organized provide a modern guidance device for the community. However, one thing to be avoided is over emphasis of facts dealing with specialties in dentistry. "The pedodontist must not preach mouth health for children alone. The periodontist must not forget other phases of dentistry in his zeal to guide regarding periodontal tissues. The orthodontist must remember that there are other mouth evils besides crooked arches and malocclusion, and a general practitioner whose greatest interest is phophylaxis must not neglect to mention other important factors in mouth health." However, there are certain basic principles which must govern all guidance measures sponsored by the profession either individually or collectively: "(1) the public must benefit; (2) the subject matter presented must not only be understandable, but must avoid faddishness; (3) the treatment presented must be an accepted procedure; (4) no controversial matters should be included until it has general acceptance by the profession; and (5) nothing should be included which will lead the public to over-estimate the ability of the dentist or detract from the prestige of the profession."[14] We must always be careful not to reach the saturation point where the audience might interpret the dental health guidance material as dental propaganda given solely for the express benefit of the profession.

Dental movies are not desirable devices for community guidance because one of the common failings of the movie is that it has been branded to be an entertainment experience for the audience. Therefore, the utilization of other visual aids such as lantern slides, blackboard illustrations and charts are recommended. However, it must never be assumed that these aids alone will do all the guiding as your own words must be planned to actuate your listeners.

Hygienist, Assistant or Nurse

Now let us discuss what part the dental hygienist, assistant or dental nurse plays in dental health guidance! To me, there are three classes of dental hygienists, assistants or nurses. They are: those who learn from their own experiences—these are wise; those who learn from the experiences of others—these are happy; and those who learn from neither their own nor the experiences of others—these are foolish. In other words, a dental hygienist, dental assistant or dental nurse is of

great significance to the dental profession and as a result her training and personality "reflect the culture and education of the dentist by whom she is employed." Her responsibility as a dental health worker for dental health guidance is reflected in the general tone of the office and she must aim to thoroughly and efficiently understand it. The services of a dental hygienist, assistant or dental nurse is required largely by the dentist who appreciates the need for a balanced environment—the presence of a member of both sexes in the office—in order to adequately render a health service, as some patients will confide more freely in a woman than in a man.

A dental hygienist, assistant or dental nurse is only as important as her position. Her success in that particular office is based upon a sound analysis of the job itself and what she is willing to do about it. In other words, "success is a delicate balance between what one is and what one does." "If you live by a profession, live for it. Help advance your co-workers. Respect the great power that protects you, that surrounds you with the advantages of organization, and that makes it possible for you to achieve results. Speak well of it. Stand for it. Stand for its professional supremacy. If you must obstruct or decry those who strive to help, why quit the profession. But as long as you are part of the profession do not belittle it." In brief you must be loyal, not only to yourself and your employers, but to the whole profession of dentistry.

The power behind your spoken words as a dental nurse, dental assistant or hygienist must not be taken too lightly as correctness in the use of the mother tongue is important. It requires little effort to tailor or streamline your thoughts in keeping with the trends of modern society. The dental nurse, assistant or hygienist is the speaker of dentistry and a patient's first impressions of dentistry often depend upon her. Learn to avoid the sharp words like extract, expensive, grind, etc. and substitute soft-pedal words like remove, economical, and smooth off. When the question "Will it hurt much?" is asked stress the doctors gentle characteristics and how careful he will be in taking care of you. Concentrate on tailoring your speech in charming attire. Emphasize the aesthetics of dentistry as well as its healthful features. Reserve time for the patients rather than give them an appointment. Create office efficiency. Guide the patients to pay their bills through finesse in expectancies of payment, regularity of statements and courteous correspondence because people pay largely by habit or by what is expected of them. Learn never to criticize the work of other dental health workers as you do not know under what conditions they may have worked. You probably could not have done any better yourself. Study your superiors and adapt yourself to their temperament through judgment and common sense. When you are wrong, admit it with courtesy and good grace. Remember that you are only as important as is your position in that office and that your value is dependent not so much on your technical skill as it is on your personality.

Your employer has the right to expect you to command the respect of his patients and the community by the life you lead, to radiate the value of good health, good character and good citizenship, to be honest and thorough in your work, to show respect for the less fortunate, to possess common sense, common interest and patience, and to be industrious and eager to advance the profession and yourself. Every word transmitted during your contacts with people condition their attitudes toward dentistry and as long as you are engaged in dentistry, your responsibility in dental health guidance must be an accepted adventure fulfilled to the very best of your ability.

Dental health guidance can be made the crux of a successful practice. A dental practitioner must not only render the health service for which he is consulted, but he should also aim to ascertain if conditions in the mouth of that patient call for other services as well. Through effective guidance, knowledge and understanding can promote action which brings health to the patient and financial satisfaction to the dental profession. The glosses of life come more readily to the dental health worker who is interested enough to continue his studies in the philosophies of dental health guidance and put into everyday life that which is necessary, that which is useful and that which adds variety. Dental health workers are not "traders in commodities, but are dealing with the vital interest of the public's health, treating bodily ills and guiding people toward sane and sensible attitudes. The dental profession's conduct calls for different standards from those which are traditional in the competitions of the market place. The community is also concerned with the maintenance of professional standards which will insure not only competency in individual practitioners, but the protection against those who would pray upon a public peculiarly susceptible to imposition through alluring promises of physical relief. And the community is concerned in providing safeguards not only against deception, but against practices which would tend to demoralize the profession by forcing its members into an unseemly rivalry which would enlarge the opportunities of the least scrupulous."[10] So too must we strive to live and perform our duty, as the public is seldom served well by the dental health guide interested only in himself.

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There are two great rules of life, the one general and the other particular. The first is that everyone can, in the end, get what he wants if he only tries. This is the general rule. The particular rule is that every individual is, more or less, an exception to the rule.—Samuel Butler.

Balancing the Occlusion *

by WILLIAM R. SCOTT, D.D.S., Vancouver, British Columbia

POSSIBLY the title of my subject—"Balancing the Occlusion" is somewhat misleading. Perhaps I should, at the outset, clarify the meaning by adding the appendage—"By Selective Spot Grinding and Partial Reconstruction of the Occlusal Surfaces of the Natural Dentition."

What do we mean by a "Balanced Occlusion"? According to D. W. McLean,[1] "Each cusp and fossa must satisfy four positions; the centric, right lateral, left lateral and protrusive—and of course the paths intervening between them" and further, he says, "Correct dental anatomy . . . is that tooth form which harmonizes with the environment to permit function."

The two main diseases which affect the teeth are those which affect them directly, such as caries, malformation, hypoplasia, erosion, abrasion, and those which affect the surrounding tissues—periodontoclasia, etc.

It is reported that more than 90% of all dental work is directed at caries and yet it is estimated that more teeth are lost from periodontoclasia than from any other dental disease.

The reason for this one-sided dental treatment by the general profession is quite apparent, since caries is more easily diagnosed, the treatment more remunerative, and because if not treated it will lead to "toothache" and the patients will demand its treatment; whereas periodontal diseases are more insidious and less painful—although "bleeding gums" and "halitosis" will drive the patient into the dental office for treatment.

The dental profession no longer considers gingivitis and periodontoclasia incurable, and since the public is becoming more tooth conscious and more dentally educated every day, the time will come when they will demand, and rightfully expect, to obtain the same preventive treatment for the supporting tissues as they receive for the teeth themselves.

Deformities

One of the most evident exciting causes of periodontal diseases, and vertical pocket formation in particular, is traumatic occlusion. This in turn is due to occlusal deformities. And here may I again quote from an article by D. W. McLean[1]. "Deformities of the masticatory apparatus are of two general types, which may occur singly or in combination. The first is a deformity due to loss or malposition of a tooth or teeth. A linguoversion, buccoversion, torsoversion or any other malposition which places cusps outside the range of functional co-operation with the teeth of the opposite jaw constitutes a deformity. Such malposition may be termed "inherent" when teeth erupt into such relationships; or it may be acquired, as when teeth move as a result of loss of adjoining or opposing teeth or as a result of stress, whether of occlusion or the leverage of faultily conceived or faultily executed appliances.

The second general type of deformity is that of the teeth themselves. Such deformity may be inherent, as when the tooth is deformed upon eruption, or it may be acquired. Acquired deformities may result from fracture or wear, from cusp grinding to correct traumatic occlusion or from faultily contoured restorations, for no matter how nearly perfect its margins, tissue adaptation or therapeutic craftsmanship, any restoration which

* Read before the Vancouver Dental Society.

lacks the anatomy its environment demands, constitutes a deformity. In the mouth, as elsewhere, the present day conception of anatomy is one not of static anatomy, but of dynamic or functional anatomy. Correct dental anatomy, therefore, is that tooth form which harmonizes with the environment to permit function. A type of anatomy which does not permit the part to perform its proper function is morbid anatomy; it is to be classed as a malformation or distortion—in other words, a "deformity".

The fact that traumatism does harm the peridental structures, no one will deny, and where possible to eliminate all will agree to do so.

Arthur H. Merritt[2] in his recent publication suggests that traumatism is not an exciting cause of periodontoclasia but rather a contributing cause. He suggests—"If a careful study be made of the problem of lost balance, it will be found that in most instances, if not in all, it is brought about by loss of resistance to stress, rather than by excessive occlusal force. The normal act of mastication, which under conditions of normality, contributes to the health and well-being of the teeth and their supporting tissues, may become a traumatizing influence when the forces which resist occlusal stresses have been weakened from any cause. It is not, therefore, primarily an excessive occlusal force which breaks down tissue resistance, but a normal force applied to tissues which for some reason or other have lost their power to resist it."

Judging from the percentage of patients, seen in our practices today with periodontoclasia present in all variations of severity, the average of human beings in normal health is certainly low. This is not surprising though when we consider the environment and habits of the present race.

Occlusal deformities are of grave significance from two main standpoints: they limit the function of the masticatory apparatus, which in turn hinders digestion, and ultimately metabolism which of course is the essence of life itself. We cannot hope to have proper tissue resistance to stress or disease if the function of digestion is hindered or impaired. As it is today, authorities claim that the average American diet is deficient in some of the essential foods, especially certain vitamins. The type of food eaten today is, as we are all aware, too soft and mushy to give sufficient exercise to teeth and periodontal tissues. Is that not reason enough for us to pay more attention to eliminating unequal occlusal stress and increasing function of the masticatory apparatus?

Fortunately for us humans, when we lose our teeth we are able to have them replaced artificially and in most cases are able to carry on quite well. However, in the case of the dog or the horse, all we can say is "Poor old fellow, his teeth are getting worn down, it won't be long now." We might well say that in the case of our own kind in many instances.

Stress Distribution

The second important standpoint in occlusal deformities is that of stress distribution. Here I again quote Dr. McLean:[1] "The natural dentures which in the writer's observation have presented the best picture of periodontal health over long periods of use are those in which there is bilateral mastication and an equitable bilateral distribution of stress, not only in the centric jaw position but also in the masticatory movements of the mandible. It is now considered axiomatic that full jaw stress falling on one or a few teeth is one of the prime causes of periodontoclasia; and it must be evident to us all that in addition, teeth made flat by wear or faulty restorations demand the application of a much heavier jaw stress to macerate or mortarize food than

sharp-cusped teeth, properly co-ordinated, do to shear it."

Too little stress on a tooth is just as harmful to the periodontal tissues as too much stress. We know from our study of pathological diseases the results of disuse atrophy. We have seen from Indian Fakirs what will happen to any part of the body which is not in function; the hand or the leg will in time wither, —the tissues will, through lack of use, lose their tone and resistance, the circulation will be impaired and disease and infection will more easily set in.

It has been figured out that the average person uses about 175 lbs. pressure on the molar teeth, less on the bicuspid teeth and about half that pressure on the anterior teeth. Many individuals may obtain the extreme pressure of 350 lbs. on their molar teeth.

The force of the bite, or the pounds force with which the jaws may be closed upon any object, varies greatly among different persons, and is dependent in larger degree upon the condition of the peridental membrane and upon personal habits in the use of the teeth in mastication than upon muscular power.

In relation to this topic allow me to quote a few excerpts from Black's Text Book of Operative Dentistry:[3] "The force of the bite of an individual is modified very materially (1) by the use habitually made of the teeth (2) by infection or injury to the periapical tissues (3) by disease of the peridental membrane.

"Full and free use of the teeth in mastication, and especially the disposition to use them freely on hard foods, contributes to strength."

"Any considerable limitation of the use of the teeth, for even a short time, shows in tenderness of the peridental membrane, and, in cases where the person has fallen into the habit of swallowing food practically without mastication, the power of the bite may be as low as fifty pounds, or even lower. Any considerable pressure in biting causes pain. In diseases affecting the peridental membrane, the power of the occlusion is rapidly reduced; that is, the muscles of mastication are held from exerting their full power by pain."

Excessive occlusal stress may result in the gradual migration of a tooth without apparent injury to its supporting structures.

There may develop a traumatic apical pericementitis or a lateral pericementitis from excessive stress or improperly directed force on the occlusal inclined planes.

In cases of a locked bite where lateral jaw movements are inhibited and in all gradations to a balanced occlusion, we can imagine that not only would proper mastication be impaired but that through lack of use certain muscles would not be utilized. This would undoubtedly affect the development of the bones of the head, more so in children than in adults.

Principles of Correction

To make an intelligent diagnosis of the case, we must first make a thorough examination of the mouth by the use of x-ray pictures, mirror and probe. Detection, and a record should be made of all caries, apical abscesses, presence of any periodontoclasia, faulty fillings, bridge or denture restorations and teeth to be extracted.

Models of the mouth should be made and articulated.

Having the complete picture before us, then and only then can we make an intelligent diagnosis. Our diagnosis should be guided by a general history of the case, including habits, age, sex, environment, and the general health of the patient.

While planning our work, unfortunately it will be necessary to consider the

patient's pocketbook. The different possibilities of procedure should be explained, keeping this in mind. The choice of work done should be left to the patient. Whatever the plan may be, the completion of the work should put the patient's mouth in a state of health, virtually and potentially.

Having decided on the amount of work to be done, a proper procedure of the work should be planned. Failing this, we may well carry on as Samson[4] in the Dental Record suggests, like "a game of golf—a mere strolling round with the object of filling holes as we go."

The initial selective spot grinding should be carried out first. By *initial,* I mean to remove any cusps or to deepen any fossae which would interfere with obtaining a good balance for the partial reconstruction work to be done, such as individual fillings or bridges.

After this primary balancing is obtained, proceed with the reconstruction of the occlusal surfaces of the individual teeth, and then with the construction of bridges, checking the balance of the occlusion as we proceed. After insertion of the bridge work, removable or fixed, recheck the occlusion for any interference and possibly do further selective spot grinding to be sure that equal stress has been obtained on all teeth in all the chewing excursions.

Partial Mouth Reconstruction

Before going into the technique of selective spot grinding, I should like to mention something about partial mouth reconstruction. Let us consider the principles for reconstruction of the occlusal surface of a molar tooth in mesio-version. The same general principle of course would apply as well in constructing the occlusal surfaces for the abutments and pontics of any posterior fixed bridge.

For the sake of argument we will suppose that the second bicuspid tooth has been lost and that the first molar has drifted forward making contact with the first biscuspid tooth. Undoubtedly the first molar would be well out of occlusal balance with the opposing teeth. If the tooth in question required an M.O.D. inlay, extend the cavity preparation to include the whole occlusal surface. This would allow for building up the cusps and fossae so that a better balance of occlusal stress would be obtained for that tooth than by merely inserting the usual M.O.D. filling, leaving the original one or two point contacts.

Selective Spot Grinding

Let us now consider the general principles for selective spot grinding. Here I am indebted to Dr. D. W. McLean who gave us such an inspiring paper in Victoria last spring at the Annual B.C. Dental Association Convention.

The first important step in this work is to determine the true centric position. In some cases it will be found that rather than closing in true centric, the patient closes to a certain contact and then slides forward slightly into protrusive, or into a false centric. In correcting this condition, the rule to remember is—grind the mesial of the upper cusps and the distal of the lower cusps.

The second important rule to follow in correction for the centric position is: if you wish to lower in centric and not in lateral, grind in the fossae, and conversely, if you wish to lower in lateral and not in centric, grind on the cusps.

Having obtained a balance in centric, test for a balance in the lateral position, both on the working and the balancing sides. To obtain a balance on the working side, the general rule is—grind on the buccal of the upper cusps, and the lingual of the lower cusps.

Now, as you all know "rules were made to be broken", and these rules are

of no exception. If, for example, you have ground all that you feel is wise off the buccal cusps of the uppers in obtaining a working balance, and yet you have not obtained the desired balance, then you will probably be able to grind on the tips of the buccal cusps of the opposing lower. This is usually quite permissible, without lowering the bite in centric, since the lower buccal cusp may make a broad contact with the fossa of the upper tooth and removal of the tip would not necessarily lower the bite of this tooth in centric. However, caution should be exercised that contact is not lost by the lower buccal cusp with that of the upper lingual cusp in the balancing position. Similarly, the tip of the upper lingual cusp may be removed to lower the balancing bite, being sure not to lower in centric or to lose contact with the lower lingual cusp in the working position.

It will be necessary to get the patient's help and co-operation in all the balancing work, because of the inability to determine very minute differences in stress on the teeth with articulating paper. Several teeth may be marked by the paper, and yet two apposing teeth may be receiving slightly more stress than the others. By closing the teeth in contact and flexing the muscles, the patients themselves can sometimes determine which tooth is receiving the heaviest pressure. It is really quite surprising how little is required, sometimes, to be ground away in order to bring a number of new surfaces or points into contact, thereby increasing the function of a tooth and probably eliminating harmful lateral stress on that tooth.

Selective spot grinding is as interesting work as it is helpful. In the process of grinding, it is almost thrilling to see new points of contact appearing on the teeth. Although the patient will tell you soon enough about these new contact points, it is best to keep checking both sides of the mouth as you proceed. When balancing the lateral bites it is necessary to keep a check on the centric position, so that you will not lower any points necessary for the centric balance.

Just a word about the anterior teeth! In the majority of cases the upper incisors will ride on the lower incisors in the lateral excursions, especially with a large over-bite or little over-jet. After having straightened the incisal edge of the upper centrals and laterals for aesthetic reasons, it may be necessary to grind the incisal edges of the lowers to facilitate balancing. The lower incisors, too, will often be causing traumatism in the centric position by making too great contact on the upper incisors. This condition will more than likely manifest itself by recession of the gum and the appearance of a heavy ring of gum tissue around the gingiva.

Even after the first appointment, when possibly the balance has only been slightly helped, I am sure you will be gratified, if not pleased with yourself, when the patient tells you,—"My, that feels much more comfortable. I can actually swing from side to side now!"

After having balanced the occlusion by selective spot grinding the amount decided upon, it may then be possible by reconstruction of the occlusal surfaces of some of the teeth to make up for any remaining discrepancies in the occlusal balance. It may only be necessary to build up one or two cusps of a tooth or a portion of a fossa to bring that tooth into a proper balance.

Milling-in of the bite by the use of abrasives, is contra-indicated in balancing the occlusion except possibly for the final elimination of roughness caused by the grinding. By milling in, the patient will wear down all the occlusal surface, and not merely the offending areas, and thus the entire bite will be lowered and nothing gained.

Common sense and good judgment must be exercised in determining the amount of tooth structure that should be removed. For instance, it would not be on the part of wisdom to remove a large portion of a tooth or teeth to obtain a balance and thereby to weaken the structure of the tooth; the amount of closure of the bite necessary to balance the occlusion must be guided by several obvious factors.

Last, but not least of the don'ts,—do not expose sensitive dentine unduly, or to an extent that would be detrimental to the health of the tooth. If it is necessary to grind away the dentine, do this work in several sittings. Very ofen, the sensitiveness will disappear after a few weeks of waiting. If a great amount of tooth structure is needed to be removed, the best method would be to remove the necessary surface and to cover it with a metal veneer for protection. There would be little danger of the exposed dentine being attacked by caries since it is chewed upon and therefore in a self cleansing area.

In conclusion, I would like to say that balancing the occlusion by selective spot grinding and partial reconstruction work is, in the true sense, a prophylactic measure. It is not only our privilege but our duty to the public and to the profession to practise preventive dentistry by all the means at our command.

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903 Birks Building.

First, about the doctor himself. The body — this should be strong, resilient, apt tc endure. To be confident and cheerful under stress, to judge well and act strongly demands a body that does not tire. If you are weary and feel abdominally, you cannot think imperially, or even hopefully."—The Right Hon'ble The Viscount Dawson of Penn, P.C., G.C.V.O., K.C.B., K.C.M.G., M.D.

Laughter — free, wholesome, unrestrained — is the best and quickest-acting tonic man has ever found. It picks him up. It keeps him young. It keeps him fit. It keeps him from going mad in times of stress. Sometimes it keeps him from war.

The Eskimos, for example, deliberately employ laughter in peace negotiations. When alien chiefs meet, comic representations are staged. If hearty laughter ensues, friendly relations are at once established.

We work on the same principle when, on being introduced, we smile; then try to think of something amusing to say in order to laugh.

Laughter raises the blood pressure when it is too low; likewise speeds up circulation, relieving congestion particularly in the brain, strengthens the lungs because of the deep breathing exercises you do automatically when you laugh, and releases pent-up energies.—Wilson Chamberlain in the "News Chronicle".

The line between failure and success is so fine that we scarcely know when we pass it; so fine that we are often on the line and do not know it. How many a man has thrown up his hands at a time when a little more effort, a little more patience, would have achieved success.—Elbert Hubbard.

Problems in Practice

Our readers are invited to send in their problems in practice to the editorial office, 314 Somerset Building, Winnipeg. These questions will be submitted to prominent dental authorities and their replies sent to the one asking the question. The more interesting subjects will be published in this section of the Journal over the author's name unless otherwise requested.

PROBLEM FROM NOVA SCOTIA:

History of Patient: Married woman, aged 60; weight, 150 pounds; placid temperament; born in Denmark and now housewife on farm. Has a good colour and gives no history of previous illnesses. There is a rather doubtful history of Vincent's infection previous to extraction of teeth. Patient impresses one as being in very good health and as far removed as possible from one who would suffer from imaginary complaints.

Patient is completely edentulous. The last teeth were extracted about two years ago. There is a history that one or two teeth were infected, but the ridges are now normal in appearance. On palpation there is no tenderness with the exception of a slight area in the left lower canine area. Tongue and cheeks are normal in appearance.

Problem: Patient complains of an intense burning sensation in the mouth particularly on the inside of cheeks and lower lips. This is set off by almost any type of food. She is living almost entirely on milk and cannot take hot, rough or spiced food without suffering intense pain.

REPLY FROM QUEBEC:

I presume this patient is not wearing dentures, especially vulcanite ones. If she is, she should leave them out for a while, to make sure that they do not aggravate the condition.

Ruling out the dentures, the burning sensation would appear to be caused by some systemic disturbance and is a case, not for a dentist, but for a medical man who should make a thorough physical examination. It may be found that this patient is allergic to certain types of food or she may possibly be suffering from some metabolic disturbance, or from a vitamin deficiency, which is entirely outside the dental field.—*John S. Dohan, Montreal.*

REPLY FROM ONTARIO:

This symptom complex appears to fit accurately the condition known as Stomatodynia which is difficult to account for on a strictly organic neurological basis. Consequently, it is usually explained as a manifestation of psychoneurosis. However, as it has been reported to occur in association with constitutional diseases such as diabetes, a careful medical investigation appears to be called for. It is possible in the course of this investigation that an innate fear in the patient might be discovered. Cocainization of Meckel's ganglion has been resorted to as a form of treatment where other procedures have failed but such a radical procedure should be deferred until other methods of alleviation have been given a thorough trial.

Reference: Prinz and Greenbaum: Diseases of the Mouth and Their Treatment. 2nd ed., 504, 1939. Lea & Febiger, Philadelphia.

—*Gordon Cameron, Toronto.*

REPLY FROM ONTARIO:

One of the first things I would look for here would be some interference with the nerve trunks supplying the affected areas. There is no reference to x-rays having been taken to find out if there were any roots, impactions, cysts, etc.

These conditions, however, are not always of purely dental origin. I recall one case of an elderly woman, edentulous, who complained of a burning sensation in the mouth for which there was no apparent cause. She was continually putting her dentures in ice water to cool them off yet her mouth tissues were a normal pink and healthy. She suffered from neuritis; when it was bad the burning sensation was bad, and vice versa.

She took a trip to her old home in Scotland where she spent three months. All the time she was there she was free of the neuritis and her dentures were so comfortable she forgot they were in her mouth. Immediately upon her return to this country the neuritis and burning sensation came back as bad as ever.

We should endeavour to remove every causative factor in the dental field before attributing the condition to some general cause.—*Felix A. French, Ottawa.*

REPLY FROM ONTARIO:

Cases of this type are frequently difficult to explain on a basis of history given and without full mouth x-rays.

Burning sensations of the mouth may be classified as of either dental or systemic origin. Those of dental origin may be as follows:—

1. Unclean habits of the patient leading to generalized stomatitis.

2. Unsatisfactory restorations resulting in inflamed and irritated areas.

3. Impacted teeth, retained roots and residual infection leading to pressure on nerves and burning sensations.

4. Partial or full dentures causing nerve pressure or friction resulting in burning sensations.

5. Denture ingredients are irritating to some patients.

6. Dental powders and pastes also are irritating to certain individuals.

7. Pyorrhetic involvement may be an aetiological factor.

8. Radical dental surgery which results in prolonged paraesthesia may cause patient discomfort.

Burning sensations of systemic origir may be classified as follows:—

1. Blood dyscrasias such as anaemia, syphilis and diabetes should not be overlooked.

2. Food allergies causing an outbreak of burning lesions in the mouth.

3. Medicinal stomatitis when there is a patient idiosyncracy to phenolphthalien, acetanilid, barbiturates, etc.

4. Leukoplakia which may be potentially malignant.

5. Exerostomia or dry mouth, the result of diminished or arrested secretion of saliva may also cause a burning sensation.

6. Neuralgias also create burning sensations, including trifacial.

Careful evaluation of dental history, habits and a thorough clinical and dental roentgenological examination with the above mentioned dental and systemic aetiological factors in mind, should by the process of elimination, evolve some conclusion.

—*George A. Morgan, Toronto.*

Obscurity in the world is not failure—the chief thing is to succeed in your own living, making your own life truly liveable; whether or not you materially, as people say, "succeed in life." There can be an art, a fine art, of simple living and homely ease, in social inconspicuousness.—Sir James Yoxall in "Live and Learn."

The Forum

• TREATMENT OF DECIDUOUS TEETH WITH EXPOSED PULPS

by CHARLES A. SWEET, D.D.S.,
Oakland, California
(Excerpt from Jour. of the Ohio State Dental Society, May, 1940.)

A DECIDUOUS tooth with an exposed pulp in the upper jaw can be anaesthetized by infiltration, but in the lower jaw a mandibular block or interosseous injection is necessary.

A. As soon as the anesthetic has taken effect the tooth is kept free from saliva by isolating it with cotton rolls and sterilizing it with alcohol.

1. No. 702 tapered fissure bur is placed in the contra angle handpiece and the pulp chamber is opened so that every part of it is clearly exposed.

2. This is followed by No. 5 round bur, removing the entire bulbous portion of the pulp, leaving the pulp fibres in the canal or canals.

3. The pulp chamber is wiped clean and the haemorrhage is controlled by using pellets of cotton. A treatment of formo-cresol or beechwood creosote is sealed in with temporary stopping for from two to three days.

4. At this appointment the tooth is isolated with cotton rolls, washed with alcohol, and the temporary stopping and dressing removed.

5. Any stain or blood exudate in the pulp chamber or on the walls of the cavity are removed by applying hydrogen peroxide and scraping with spoon excavators.

6. A second dressing of formo-cresol or beechwood creosote is sealed in with temporary stopping for from two to three days.

7. At the last appointment, the tooth is again isolated with cotton rolls and washed with alcohol, and the temporary stopping and dressing are removed.

8. The pulp chamber of the tooth is filled with a creamy mix of zinc oxide and eugenol, and with pellets of cotton the paste is forced into the orifices of canals and onto the floor of the pulp chamber. The excess of zinc oxide and eugenol paste is scraped out with spoon excavators.

9. A thick mix of crown and bridge cement is placed in the cavity and a sufficiently deep step is carved before the cement has set.

10. The restoration of the tooth should now be completed by placing a silver amalgam filling in the cavity.

• CHILDREN'S DENTISTRY FROM THE STANDPOINT OF THE PSYCHIATRIST

by JULES V. COLEMAN, M.D.
Pleasantville, N.Y.
(Excerptp from Dental Outlook.)

WITH anxious children, it is especially important to never begin treatment until a friendly relationship has been established; not to permit the parent to be in the office together with the child; to allow the child to become thoroughly acquainted with the office before asking him to open his mouth, and to make it possible for the child to feel that he is participating in the treatment process. Children have unlimited curiosity, and will be delighted when the dentist takes some time to show them some tricks of squirting water and what he can do with a drill besides working on teeth. Simple examination of the mouth and the carrying out of painless procedures may also be of help in preparing the child. Under no circumstances should dentistry be forced on a resisting child.

• PAINFUL PATIENTS

by J. C. METTS, M.D., Neurologist, Savannah, Ga.

(Condensed from Journal of First District Dental Society of Savannah, Ga., U.S.A.)

TO THOSE who follow the healing art come many people of diverse symptoms and one common complaint. Patients have pain, sometimes are a pain, and of both these I would speak briefly today.

Theoretically it should be a simple matter to calculate a carefully considered therapeutic measure to prevent or alleviate pain. Unfortunately this is often not possible because of patients themselves who demand some immediate action without pausing to consider the possible advantages or disadvantages that may follow. All too familiar to you gentlemen is the patient who has undue pain from some trivial thing who demands immediate relief and who expects miracles where few are possible. His counterpart has existed in all ages — from the reverend counsellors who persuaded the Carthagenian mothers to sacrifice their babies in the flaming Maw of Moloch to the present-day apostles who would spend us rich and relieve hunger by plowing under food or slaughtering pigs.

In your profession you, too, have those with a driving urge, the tired, the discouraged, the neurotic, thronging your waiting room, demanding that the pain be cut out or pulled out.

In your profession, too, you find that all men are not cast in the same mould. A few of your patients are sturdy, tolerant people, enduring such discomfort as they may encounter in your efforts at relief. Too often you find the opposite, the patient with undue pain who complains incessantly of some trivial ailment and who regales you for long periods with "organ recitals" of his woes.

This nervous, hypersensitive individual I would ask you to briefly consider. Why should he complain of undue pain? To tell him that he should forget his troubles, or "snap out of it," is an open invitation to seek relief elsewhere, often driving him from capable hands into those poorly trained, or not honest, and thereby adding another recruit to the already large army of those who sow the winds of discontent and rouse the rabble for selfish ends. To really help you must see your patient as a human being, not a problem in mechanics, realizing that most of his complaints are his emotional response to some situation or some problem with which he is unable to cope. Your problem may be simple, some mechanical defect requiring a simple adjustment or the relief of organic pain. The reassurance that nothing would indicate the immediate loss of all his teeth may calm his fears and relieve the anxiety of a patient; but how many times we hear the complaint, "But, doctor, there must be a cause. I want to know the cause." And doctors being only human are often influenced by their patient, sometimes by the physician, who in desperation, self-defence, or the necessity of catching a fishing tide, has referred him for a "careful" check of his teeth. And in the effort to purge some non-existent toxin an innocent tooth is sacrificed while the offender, the nervous system, goes its way in peace.

Nor must we forget our problem child, the patient who is a pain, usually some nervous, irritable, highly strung individual with a long string of somatic complaints who has been referred in the enduring quest of cause, whose tonsils and appendix have long since gone the way of all flesh, and whose muchly autographed abdomen bears mute testimony to the surgeon's art, but the patient still complains and now comes, ready to sacrifice her teeth upon the altar of confidence in her physician. A touching tribute, to be sure, but one over which we should fast and pray for three whole days before tak-

ing any violent action. Some of these individuals are sick. Some have dwelt for a long time in the house of Aesculapius, seeking relief from arthritis, heart disease, nephritis and a host of other ills whose abode is normally the duration of our lives. Many others are not physically ill, but swelling their ranks are the temperamental, the emotionally unstable, those who are unable to reconcile their ambitions with their attainments.

Here physicians and dentists walk on common ground. How may we best approach the problem which this individual brings? To promise that the simple removal of teeth will bring relief is to either pass the buck or take a naive view. It is true that occasionally such a miracle may occur, but not more often than may follow the administration of swamp root, Lydia Pinkham's, chiropractic or Christian Science, and I do not doubt that should you search long enough you might find some individual who had entirely recovered after taking brick-dust. True enough, any defects present, a blind abscess, a pyorrheal undermining, the absence of too many teeth to give adequate grinding surface, all should be corrected for their own sake. *However, the dentist and physician alike, must remember that his own personality is his greatest asset in the therapeutic approach to those who are chronically ill.* Medical men of all times, from the ancient priests of Thebes to the great luminaries of our day, have cures credited to them that can not possibly be ascribed to the remedy they employed To forget ourselves and become mechanistic minded is to abandon at once our most effective treatment in the care of our chronic patient.

Cultivation of a certain amount of imperturbability in ourselves is highly desirable, that we may regard this person as a sick man seeking relief; that our attitude be kindly and sympathetic.

This individual is more sensitive to pain than those whom you ordinarily call good patients. More sensitive to the varying moods of the doctor, he must be handled with velvet gloves. In discussing our diagnosis of his trouble we must go into considerable detail. He is unlikely to accept any opinion, pronounced ex-cathedra as it were, where this conflicts with his own ideas or fears. And here is the greatest field for co-operation between our mutual professions. I cannot practice dentistry. You may be more successful in medicine than seems to have been my lot, but collectively we can do much. The family physician's appraisal of a man may help you much in your evaluation of such pathology as you find, and your opinion will be invaluable in deciding a therapeutic plan of action. Treatment in these cases, if successful, cannot be a haphazard thing varied from time to time, but must have a definite goal based on the treatment of the individual as a whole, and on the knowledge that his illness will last a long time.

The patient himself must undergo a process of re-education, must overcome an inner resistance in himself against instinctive dislike of being labelled a "neuropath," must surrender that part of his ego which sets his illness apart from those of common men. He must be persuaded to discipline himself against giving way under minor pressure, to go on in spite of his physical discomfort in order that his will may be strengthened through overcoming difficulties. Sometimes his very mode of living may have to be changed and he may have to be persuaded to follow a way of life that he is able to travel alone. He must give up those interests or occupations which impose an undue load, must be encouraged to have diversion, recreation and rest.

In conclusion, if we are to be of most help to our painful patients we cannot remain mechanistic minded, but must regard them as human beings seeking re-

lief; must approach them in a spirit of interest, sympathy and human kindness, curing where we can, comforting where we may, but relieving pain by any means, always, and by so doing we shall earn their enduring gratitude, a reward more fitting than to dwell on Mount Olympus and listen to the voice of the gods.

• THE REDUCTION OF BREATH AND MOUTH ODOURS BY MEANS OF BRUSHING THE TEETH

by GLEN E. SULSER, D.D.S., T. A. LESNEY, D.D.S., and L. S. FOSDICK, Ph.D.

(From the Clinics and Laboratories of Northwestern University Dental School.)

(Summary and Conclusions of paper in Jour. of D. Research.)

THE amount of odour reduction to be expected by brushing the teeth, on early morning breath and general mouth air has been determined.

1. Brushing the teeth with a flavourless dentifrice will reduce odours on early morning breath 66 per cent, general mouth odours 30 per cent in aggregate. 2. After brushing the teeth 90 per cent of the cases have mouth odours that would be inoffensive to most individuals. 3. Brushing the teeth with a dentifrice is more effective than brushing without a dentifrice.

• FIXED BRIDGE CONSTRUCTION

DR. HERBERT H. KABNICK of New York University at St. Louis, speaking before the section on Prosthesis said:

"After a long period of observation, I have come to the conclusion that Fixed Bridge Construction revolves around three main factors: bone support, cavity preparation, and occlusion."

The ideal construction must be carefully planned. This is accomplished by means of a complete series of radiograms, study models, and case history. The required number of abutments may be used in order to provide the proper bone support. Cavity preparation is of paramount importance. A study of failures proves beyond doubt, that the simple M.O., M.O.D. and three-quarter crown preparations have not offered sufficient retention for the complete fixed bridge; i.e., fixed at both ends. Loosening of bridge abutments may be overcome by employing the principle of locks and accessory anchorage pits. Following these principles, the following simplified preparations are offered, which answer any requirements of fixed bridge construction: anterior three-quarter crown, posterior three-quarter crown, atypical three-quarter crown, slice lock and pit-veneer. Because of the fine internal anchorage, it has been found necessary to reproduce these cavities by the direct method. Inasmuch as extensive fixed bridges are recommended, the process of assemblage becomes of great importance. At no time are two units assembled, that will tie up two abutment teeth, from the soldering model. All fixed joints are united from the assemblage core of the mouth.—*N.Y. Jour. of Dent.*

• VITAMIN D

by WILLA YERETSKY, D.D.S., Grand Rapids, Mich.

VITAMIN D is a very important vitamin in the utilization of calcium and phosphorus. It is often called the anti-rachitic vitamin because of the important part it plays in the prophylaxis of rickets. However, Broderick (Dental Medicine) calls to attention the fact that rickets does not occur in the absence of vitamin D if the calcium and phosphorus in the diet is kept near an optimal value. He quotes the "Lancet" to assure us that "the real function of vitamin D is to correct the absorption and assimilation of calcium and phosphorus when they are supplied in unsuitable proportions.

The term "anti-rachitic vitamin" is therefore misleading and unsuitable.

The Council on Therapeutics of the American Medical Association allows the following claims for vitamin D:

1. Vitamin D is recognized as a specific in the treatment of infantile rickets, spasmophilia (infantile tetany) and osteomalacia, diseases which are manifestations of abnormal calcium and phosphorus metabolism. Vitamin D is valuable in the prevention as well as in the curative treatment of these diseases. Complications such as renal insufficiency or glandular malfunction may preclude normal response to vitamin D therapy. During acute infections, especially of the gastro-intestinal tract, vitamin D may prove ineffective because poorly absorbed.

2. Direct exposure of the skin to ultraviolet rays from the sun or from artificial sources results in the formation of vitamin D within the organism but the Council cannot recognize statements or implications that vitamin D has all the beneficial effects of exposure to sunshine.

3. There is clinical evidence to justify the statement that vitamin D plays an important role in tooth formation and maintenance of normal tooth structure, but there is no warrant for the claim that adequate vitamin D intake will insure normal tooth structure or that adequate vitamin D intake will prevent dental caries.

4. Animal Experimentation has shown that correction of an inadequate intake of vitamin D results in the more economical utilization of calcium and phosphorus and also that the undesirable effects of improper ratios of calcium and phosphorus in the diet can largely be overcome by normal intake of vitamin D. The importance of these observations in their application to man is not entirely apparent because of the lack of adequate clinical evidence showing the availability of different forms of calcium and phosphorus, but it may be stated that vitamin D has a favourable influence on calcium and phosphorus metabolism.

5. The vitamin D requirement appears to be greatest during the period of infancy. Beyond the age of infancy the exact vitamin D requirement of man under any specified conditions is not known but it appears that the requirement during pregnancy and lactation is increased.

6. Clinical evidence does not warrant that the fortification of foods with vitamin D are of benefit in chronic arthritis, in allergic disorders or in psoriasis."

There has been considerable propaganda for the fortification of foods with vitamin D. The Council on Foods of the American Medical Association allows only the fortification of milk with vitamin D. Other items such as chewing gum, beer, sausage, ice cream, cake, candy, and flour cannot be recognized as having a real value when fortified with D. Indiscriminate fortification should be discouraged in the light of our present knowledge. It is far better to encourage the use of a varied and adequate diet.

A chart from Barborka (Treatment by Diet) may be found below.

Relative Distribution Of Vitamin D in A Few Common Foods

Most Potent		Excellent		Good	
Plant	Animal	Plant	Animal	Plant	Animal
Plant sources as a class, are practically devoid of vitamin D	Halibut liver oil Cod liver oil Sunlight, direct (2) (most potent in summer) Tunafish liver oil		Egg (yolk) Salmon		Butter, (variable) Clam Milk, whole (variable) Oyster

Jour. Mich. State D. Soc., Feb. 1940.

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Where Do We Stand?

Last May dental leaders from all parts of Canada met in Toronto to deal with problems facing the Canadian Dental Association. Four days were spent in an intensive study of those problems. Certain ideals were outlined and plans were formulated to help make them realities. The problem has now resolved itself into the question, Are we prepared to make any sacrifice to attain our ideals or are we merely going to give lip service to those ideals? Too many of us, apparently, are satisfied with our way of living from a dental standpoint and we have taken it for granted for so long that we cannot see the changes that are coming and the necessity for preparing to deal with them.

If the Canadian Dental Association is to survive and continue to be an essential part of Canadian dental life the membership fee must be raised, not ten years hence, but now. The delegates who met in Toronto went home with the agreed understanding that every effort possible should and would be made to have this goal reached in their respective provinces at the earliest possible moment. Since then certain objections to taking immediate action have been made in some parts of Canada. One Board states that while it recognizes the need for a strong national dental organization, it believes that a campaign for

the education of the profession to the aims and accomplishments of the Canadian Dental Association is indicated before the fees to the national association could be increased, and that the initiative for this education is the responsibility of the C.D.A. and should be undertaken by this body. It would seem that some comment on these decisions would be timely. For six years the C.D.A., with most inadequate financial support, has published an official journal. During that time the work of our national association has been carefully outlined in this journal and the need for such an association has been repeatedly discussed and brought to the attention of our profession. If there is a dentist in Canada who is not enlightened upon the need for a national association it is because he has not read what has been written and I submit that he is not at all likely to read what may be written in the future. This is a question of leadership. If the leaders become convinced of the justice of our cause, the rank and file will follow. The responsibility upon the leaders, at this time, is very great. Let us hope that they will not fail us in this crisis.

I would take exception to the statement that this problem is the responsibility of the Canadian Dental Association. It is the chief responsibility of every leader and every provincial board in Canada. When the members of the Manitoba Dental Association, seven years ago, voted unanimously to increase the dues to the C.D.A. to four dollars per member, they did so because they realized the great need for such an organization and were prepared to do their share in supplying this need. The Manitoba leaders did not say, "It is up to the C.D.A." They felt that they were part of the C.D.A. and as such had a personal responsibility to meet.

It has been expressed, also, that if this question of the increase of fees to the C.D.A. were made an election issue that the personnel of certain Boards might be changed. Surely we have not many dental leaders who would object to going down to defeat, to oblivion if necessary, in the interests of what is right, and definitely in the interests of the profession of dentistry in Canada. If this vital support of the C.D.A. is ever to be given, it will be brought about by leaders in various communities who have caught the vision and who know the possibilities of a strong, national body and will work for it and support it as individuals whenever an opportunity presents itself regardless of personal consequences.

Several of the smaller provinces have already agreed to increased fees. If Ontario with nearly half the dentists of Canada would assume leadership in this campaign our national, dental problem would be solved. An outsider can easily visualize why many dentists in Ontario do not see the need for a strong national association. It is because Ontario is so well organized within its own confines that the Ontario dentists can scarcely imagine what more could be added by a national association. In this connection several factors need to be elucidated. Ontario has a renowned convention each year which meets fully the needs of the men of that province. It is not generally comprehended, however, that conventions are held in other provinces, which though

not as large, are most efficiently managed and from which those who attend frequently obtain much more information of value than from the larger gatherings. In the smaller provinces the work of various committees does not seem so spectacular because the field is not so large but the results are just as favourable and meet the need of all concerned, just as effectively — and in many cases more effectively — than in the case of the larger organization. In the smaller provinces there is not as great a tendency for cliques to develop who in their ambition for power help to throttle the natural growth of our professional life. It is easier to arrive at a common policy which is agreeable to all. In fact the central control is much more effective than in a larger province where many influential groups are striving for the ascendancy. The fact remains, however, that although many of these routine provincial matters are well handled by all of our provinces there are still a number of problems of a strictly provincial nature which have not been satisfactorily dealt with by any province and in the solution of which a national association could be of great assistance.

There are some things, however, in fact many matters of national importance, which can only be handled by a national association; problems which now affect the life and which will continue to affect the life of every dentist in Canada to an ever increasing degree, and which can only be dealt with by a nation wide organization. Those problems have been repeatedly enumerated or suggested in the pages of this Journal. In dealing with such matters the chief committees are just naturally appointed in our largest province, Ontario. This means that while Ontario has practically full control of these matters, and goes to the Federal Government with these problems in the name of the dentists of Canada, that over half the cost of maintaining this service is met by the other dentists of our Dominion.

It is the definite feeling of the dentists in the smaller provinces of Canada that Ontario has more to gain from a well-organized Canadian Dental Association than has any other province, although the opposite view is the natural opinion of a great many dentists residing in our great province of Ontario.

It is only by a frank statement of facts that we can hope to arrive at a satisfactory solution.

> " 'Tis life, not death for which we pant:
> 'Tis life, whereof our nerves are scant:
> More life and fuller, that we want."

I have travelled from coast to coast a number of times. I have talked with many dentists in various parts of Canada and am convinced that what we, as dentists in all parts of Canada, need more than anything else is a strong well-organized Canadian Dental Association.

The Nightmare of April

"Hunger, rags, cold, hard work, contempt, suspicion, unjust reproach are disagreeable; but debt is infinitely worse than all."

Whether we feel that we can afford it or whether we are sure that we cannot, we, as dentists, will have an unusual burden to face next April in the nature of an Income Tax, a burden which will prove a veritable nightmare and cause no little worry to many unless steps are taken at once to meet the situation.

May we suggest that the thing to do is to economize now and lay aside a definite amount each month (not the false economy of neglecting office equipment and the purchasing of sufficient supplies, but the curtailing of luxuries) so that when April arrives we shall be able to face the problem with equanimity. Economy to be effective must be a managed economy. Start now to say, "I can't afford it" and remember that "Comfort and independence abide with those who can postpone their desires."

It is not a question of our being unwilling to support our great war effort in this and every other way. We would that we were in a position to subscribe billions to the fund. It is just a question of ordinary common sense. If we carelessly drift along until April with no preparation having been made we will be faced with a problem which may be difficult to solve.

BOOK REVIEWS

Twelve Periodontal Studies by Harold Keith Box, D.D.S., Ph.D., Research Professor of Periodontology, Faculty of Dentistry, University of Toronto. Published, 1940, by The University of Toronto Press, Toronto. Price $2.50.

This is a series of twelve lectures given by Dr. Box to the fifth year students of the Faculty of Dentistry, University of Toronto. These lectures cover the following subjects. Oral Cavity; Physiology of the Masticatory Apparatus; The Influence of Heavy Function and Lack of Function on the Periodontal Membrane and Supporting Bone; Traumatogenic Occlusion and Articulation; The Periodontal Pocket; Periodontal Therapeutics; Case Management; Treatment of Simplex and Complex Periodontitis; Necrotic Gingivitis; The Periodontal Aspect of Caries Immunity.

In discussing the problem of wear, Dr. Box points out that owing to the lack of abrasive action in our modern diet the use of an adjunct to supply this need is plainly indicated, but that its use should be under the observation and control of the dental practitioner. The reviewer would like to place special emphasis on this latter statement at it would appear to be a very dangerous practice to give a patient an abrasive gum for the purpose of wearing down the teeth and to allow the patient to continue this practice without very careful supervision.

The outline discusses fully his research work in connection with the use of Dunlop Vapour and very great credit is due him for emphasizing the value of this method in the treatment of periodontal lesions.

In these lectures Dr. Box has not only outlined his own splendid contributions to the practice of periodontology but has supplemented his statements by the more recent scientific and clinical findings of other workers in this field.

The whole future of our professional prac-

tice must depend on our ability to place the periodontal tissues in a condition of health and keep them in such a condition. For this reason every dentist should seek all possible information relative to this field of dental practice. As Dr. Box is recognized as Canada's No. 1 research worker in periodontal problems and is likewise recognized abroad as an outstanding research worker, his statements should be perused by all our readers. No dental library is complete without a copy of these lectures.—*M. H. G.*

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A Textbook of Exodontia, Exodontia, Oral Surgery and Anaesthesia, by Leo Winter, M.D., D.D.S., F.A.C.D., Sc.D. (Hon), LL.D., Professor of Oral Surgery, New York University, etc. Fourth Edition, 520 pages, 475 illustrations, 2 colour plates. St. Louis: The C. V. Mosby Company—1940. Canadian Agents: McAinsh & Co. Limited, Toronto. Cloth $11.50.

This is a very complete work for the general practitioner and exodontist alike. The author has included in this latest edition a splendid chapter on local anaesthetic agents and their properties together with a table showing variation in toxicity, a chapter on General Anaesthesia written by Dr. E. A. Rovenstine, a well known authority on anaesthesia, which covers all the agents commonly used for anaesthesia during operations in the mouth, their properties and administration; a section on haemorrhage with a method given to ascertain bleeding and coagulation time.

The author presents in detail his technique for the extraction of each tooth and the removal of fractured root fragments; the surgical preparation of the mouth for dentures; the operations for removal of impacted teeth and cysts.

He presents for the first time in this volume a section on the use of sulfanilamide in the treatment of infections arising in the oral cavity and its local application following pericoronal infections and in dry sockets.

The book is well prepared, is profuse with excellent illustrations and is up to date in technique as well as theory; a very handy reference volume—*J. Fred M. Kennedy.*

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Accepted Dental Remedies by the Council on Dental Therapeutics of the American Dental Association. Cloth, 317 pages. Published by the American Dental Association, 212 East Superior Street, Chicago, Illinois, 1940. Price $1.00.

This book contains a list of official drugs selected to promote a rational dental materia medica and descriptions of acceptable non-official articles, which are acceptable to the Council on Dental Therapeutics of the American Dental Association.

The descriptions of accepted proprietary articles are based, in part, on investigations made by or in co-operation with the Council, and, in part, upon evidence on information supplied by the manufacturer or his agent.

In so far as possible previous errors have been corrected and several informative articles have been added.

This book, at the nominal cost of $1.00 should find its way into the offices of all our members.—*M. H. G.*

Conventions

EASTERN ONTARIO DENTAL ASSOCIATION, CHATEAU LAURIER, OTTAWA, OCTOBER 14-15, 1940.

GREAT LAKES ASSOCIATION OF ORTHODONTISTS, ROYAL YORK HOTEL, TORONTO, OCTOBER 28-29, 1940.

77TH ANNUAL MIDWINTER MEETING OF THE CHICAGO DENTAL SOCIETY, STEVENS HOTEL, CHICAGO, FEBRUARY 17-20, 1940.

The only good luck many great men ever had was being born with the ability and determination to overcome bad luck.—Channing Pollock.

DENTAL CORPS NEWS

Overseas News

Major W. G. Trelford has been promoted to the rank of Lieut.-Col. and made Senior Dental Officer at Canadian Overseas Military Headquarters, London, England. Major F. W. Saunders takes over the Command of the 1st Divisional Dental Company.

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3rd Divisional Dental Company

Major John F. Edgecombe, D.D.O., M.D. No. 7, Saint John, N.B., has been named O.C., 3rd Divisional Dental Company, with Captain J. G. Hamilton, M.D. No. 11, as Adjutant and Quartermaster.

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M.D. No. 4 Dental Company

Capt. O. A. Lefebvre of Montreal has been promoted to headquarters staff as adjutant of No. 4 Dental Company at Montreal.

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M.D. No. 10, Headquarters Winnipeg

Captain C. W. Steele, C.D.O., No. 2 Training Command, R.C.A.F., has been promoted to the rank of Major.

Lieutenant Joseph Rice is now on duty being posted to the R.C.A.F. with Capt. Steele.

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Dental Officer Escapes Death

Somewhere in England Major I. Hamilton had been detained in his laboratory and was about to leave when the air-raid siren sounded. As soon as the "all-clear" was given he rushed off to his billet accompanied by Major J. F. Blair. Upon arrival they found that a bomb had pierced the roof and exploded in the centre of the room occupied by Major Hamilton. All he retrieved was a tattered tunic riddled by bomb splinters, as a grim souvenir of his lucky escape.—*Free Press, London, Ontario.*

Editor's Note: Major Hamilton's picture appears as the frontispiece in this issue of the Journal.

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Dental Fitness of Canadian Forces

A soldier in the last Great War took his toothache to a dental clinic; in this war a Dental Corps officer will come to his toothache. True, dental officers were to be found with the Canadian Corps in France and Flanders. At one time there were three to a division, a matter of 2,000 men. In this war there is a change—and what a change. A Canadian Dental Corps, re-formed and re-vitalized, possesses mobility, strength and equipment to give service to the troops quickly and under almost any conditions short of actual armed engagement.

This is Canada's unique contribution towards bringing the best of dental science close to the fighting men.

In the last war Canada demonstrated to doubting army officers the value of dental units. And how they did it is easy to recall by those who saw the extraordinary demands upon the limited numbers of clinics available. This time, under a new set up, with larger numbers and better equipment, dental treatment will be largely expanded and facilitated. It is important that it should be. In the last war, at the peak of their effort with the limited means available, the Dental Corps was enabled to increase the fighting strength by ten per cent—men who would otherwise not have been able to enlist. In the Boer war over 2,000 British soldiers were invalided home on account of dental disabilities or other disorders directly attributable to them.

What is Canada doing to eliminate wastage in the strength by dental troubles among the troops? It is setting up a chain of clinics stretching from the fighting units back to the base hospitals.

No other army will have comparable kits—unless it copies them—or be able to take care of the oral health of the men so effectively.

From the inception of his service the recruit receives dental care. It must not be supposed that he waits until he gets into an overseas unit. There is complete organization in Canada, as well as with the active service units abroad. Every military district in Canada has its dental company organization. All, even those who have gone overseas with the Canadian Forces, have been dentally examined and treated if necessary.

Today, the ideal of one dental officer to

500 men in the Canadian Army has been achieved by the Dental Service. There is so vast a difference between the organization now and that existing at the start, even at the end, of the last war, that comparison is impossible. There is deep knowledge behind these words, for the author well remembers the only solace he could find for an aching molar on Salisbury Plain was to have it pulled in an operation of dentistry at its roughest. A well-intentioned dental officer equipped only with forceps, pitted his pulling power against the resistance of the victim straddling a rough bench. A mobile "operating unit" then would have seemed like the answer to a sufferer's prayer.—*The Dental Record, July,* 1940.

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His Excellency Visits Camp Borden Clinic No. 2 Company

It was a high honour for the dental officers and staff of Camp Borden Clinic No. 2 Company, C.D.C., to have a visit from His Excellency the Governor General of Canada. His words of commendation for the treatment given the troops were greatly appreciated and his apparent keen interest in the clinic generally was a source of great encouragement and inspiration.

Lt.-Col. H. G. Bean is District Dental Officer for M.D. No. 2 with headquarters at Toronto. Major J. H. Burrows of St. Catharines has recently been appointed to the command of No. 2 Company Dental Corps. The company now operates nine clinics whereas a year ago it had only one in operation. The establishment for the company has doubled in the year and it is expected that in the very near future this will be further increased.

All clinics, of course, are in charge of qualified officers and since all dental officers must qualify in a military course to receive their promotion to captaincy, this has entailed considerable study and training in addition to regular clinical duties. The administrative staff of the district has provided guidance in military training and it is a matter of great satisfaction that the dental officers have stood up well in their qualifying course.

Recent promotions in M.D. No. 2 Dental Company are—Major H. G. Bean, D.D.O., Toronto, to Lieutenant Colonel, Captain J. H. Burrows to Major, Lieutenants A. B. Sutherland, F. A. Kohli, S. L. Oliver, J. D. Barnet and D. M. Tanner to Captain. Other dental officers who have recently qualified are anticipating promotion at an early date.

His Excellency the Earl of Athlone, Governor General of Canada.

The following constitutes the nominal roll of officers of No. 2 Company as of September 14th:

Lt.-Col. H. G. Bean, D.D.O., M.D. No. 2 Dental Co.; Major J. H. Burrows, Officer in Command, No. 2 Company; Captain W. L. Finlay, Adjutant; Captain W. T. Gildner, Quartermaster; Captains J. D. Barnet, A. E. Hobden, N. C. Smith, S. M. James, F. A. Kohli, H. T. McLachlan, J. M. McDonald, W. S. Madill, S. L. Oliver, L. H. Smith, A. B. Sutherland, D. M. Tanner; Lieutenants R. H. Aljoe, R. T. Broadworth, R. E. Brayley, H. C. Cobin, V. R. Farrell, J. A. Grant, H. S. Grey, R. W. Hughes, B. P. Kearney, W. T. McIntosh, E. C. McKee, Percy Pearen, L. J. Saunders, E. B. Sisley, N. L. Simon and G. T. Walker.

NEWS FROM THE PROVINCES

BRITISH COLUMBIA:

Spokane Dentist's Advertising Barred

At the suit of the College of Dental Surgeons of B.C. in Supreme Court an injunction was granted restraining David Cowan, a Spokane dentist, from advertising dentistry in the province of British Columbia.—*Vancouver Province.*

MANITOBA:

Winnipeg Dental Society

Once again the dental profession of Manitoba is indebted to the Royal College of Dental Surgeons of Ontario (the legal body) and the Faculty of Dentistry of Toronto University. These two organizations are the joint sponsors of the extra-mural lectures and dental clinics made available to the dental societies of the different provinces.

In June, 1938, Dr. Roy G. Ellis of the dental faculty passed through Winnipeg on his way north to Aklavik to install a dental clinic in a hospital at that point. He kindly stopped off long enough to address the annual meeting of the Manitoba Dental Association on "Recent Developments in Gold Inlay Technique". He made such an excellent impression that the Winnipeg Dental Society had him as its guest speaker for its opening meeting of the 1940-41 season.

Dr. Ellis gave a very informative and practical talk, illustrated by lantern slides, on the proper diagnosis and treatment of broken, anterior, permanent teeth of children. These distressing accidents are all too frequent and Dr. Ellis' methods of taking care of such cases are most dependable.

Dr. Ellis was accompanied by Dr. Don W. Gullett of Toronto, recently appointed successor to Dr. Walter Willmott, as secretary of the R.C.D.S. Dr. Gullett made a fine impression upon those who met him, not only for his genial personality, but because he is a strong supporter of a fully organized and active Canadian Dental Association. Dr. Gullett realizes that this requires a full-time secretary and adequate financial support by the provincial legal bodies. Dr. Ellis and Dr. Gullett have been visiting the mining towns of northern Ontario and Dr. Gullett said he was very pleased with the apparent realization of the profession in this part of Ontario of the need of raising their dues so that a sum of $4.00 per member could be given annually to the C.D.A.

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Nurses and Assistants

The opening meeting of the Winnipeg Dental Nurses and Assistants' Association was held on September 9, in the St. Regis Hotel.

Following a short business meeting which was presided over by the President, Miss Juel Grose, Miss Lavinia Veal gave a very interesting talk on her trip to the Eastern Convention which took place in Toronto last May.

Six new active members were present.

ONTARIO:

Dental Clinics

The 1939-40 report of proceedings of the Board of the Royal College of Dental Surgeons of Ontario, recently published, indicates some findings and regulations in regard to Public Dental Clinics. It is reported that the number of Industrial Dental Clinics in the United States has decreased from 84 to 63; that the types of service rendered vary from relief of pain only, up to a complete dental service; that the cost of the service per chair hour varies from 60 cents to four dollars; that the number of hours worked by the dentist in the clinic usually exceeded that of the men in the plant.

As a result of the Board's deliberations it was indicated that the establishment and supervision of all industrial dental clinics should remain the prerogative of the Board. Several other specific regulations are laid down which seem to suggest that the Board neither encourages nor discourages the institution of dental clinics but when any organizations desire to establish a dental service for their employees the Board desires to supervise the promotion of the scheme so that it would be practical and fair to those receiving the service, those paying for it and those rendering it.

Dr. Agnew and Family Return

Dr. and Mrs. R. Gordon Agnew and family have returned to Toronto on furlough after a second term of eight years in Chengtu, China.

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Dental Nurses' Alumnae Association of Canada

On September 10, the Dental Nurses' Alumnae Association held its opening meeting for the year 1940-41 at the Faculty of Dentistry, Toronto.

The guest speaker for the evening was Mrs. W. J. Falkner whose informal talk about the Red Cross was both interesting and enlightening. Mrs. Falkner was introduced to the members by Miss E. Courtney and a vote of thanks was tendered her by Miss F. Peart.

The Alumnae hopes to continue and enlarge its war work effort this year.

Toronto Ladies' Auxiliary Raises $700

The Toronto Ladies' Dental Auxiliary held a garden tea at the farm home, "Windy Acres", of Mrs. John A. Bothwell at Erindale on the afternoon of Saturday, September 14th. Throughout the summer the ladies were continually busy with a net result of $700 in the treasury to begin the fall activities. President Mrs. Schumacher and her able executive may well be congratulated on this splendid effort.

The first meeting of the regular fall session took the form of a luncheon—held at Rosedale Golf Club. Dr. E. T. Guest, President of the Toronto Academy of Dentistry, introduced Mr. Willson Woodside who gave an address on International Relations. Mrs. Martin and Mrs. Fisk entertained with music.

GENERAL NEWS

Dental Care for Overseas Children

When it was announced by the Government that a large number of English children would be brought out to Canada for safety, the Montreal Dental Club realized that some provision should be made to give them dental care.

A call for volunteers was made and a splendid response was received from its members, each member agreeing to take care of ten or more children at his office. Dr. A. D. Angus was appointed to organize this service for the children located in this area.

It was felt that if a dental service could be provided which would give them ordinary dental care during their stay in Canada the benefit would be of great value in after years, as we know that the critical time for treatment is between four and fourteen years of age. The children cared for by the members of the club are known as the King's Wards, and are brought out under Government supervision.

The plan adopted was to work in co-operation with the Council for Overseas Children. The Montreal Dental Club was made a co-operating member of the Council for Overseas Children. As the children are placed with their guardians their names are forwarded with the names, addresses and telephone numbers of their guardians. The children are then assigned to a dentist and the Council notified. We want, as far as possible, that once a child is placed under a dentist, he will maintain contact with that child and give treatment during the entire visit to Canada. We wish to care for that child's mouth and provide all ordinary treatment.

In addition to this service a team of several members volunteered to be on call to take care of emergent cases of children passing through Montreal, who were to be located in the West and the United States. Dr. Walsh offered the co-operation of the McGill Dental Faculty with its clinical branches and equipment.

Many of our members are giving dental service to children who came out privately, but it was felt that in regard to the King's Wards an organized plan was essential.

Cleveland Meeting of American Dental Association

National defense and the role the dental profession will play in it took the spotlight at the 82nd annual convention of the American Dental Association in Cleveland, Ohio, Sept. 9 to 13, when more than 10,000 dentists from all parts of the country gathered in commemoration of Dentistry's 100 years of service.

In his official address to the convention's first general session, Dr. Arthur H. Merritt of New York, retiring president of the A.D.A., outlined a three-point program for American Dentistry as it enters its second century: research, public education and care of the indigent by the state.

"This is the only logical approach," Dr. Merritt said, "to a problem which, at some time in life, touches every man, woman and child in this country. It represents one of the major health issues of this generation and is so regarded by many thoughtful persons concerned with the health of the nation."

Dr. Wilfred H. Robinson of Oakland, Cal., president of the A.D.A. for the forthcoming year, on receiving the gavel from Dr. Merritt at the convention's close, said:

"Though we will devote much energy to national defense, we will not be unmindful of our responsibility to the public, and we feel that the dental profession is competent to maintain its dual responsibility to the government in a time of emergency, and to the general public."

Dr. Oren A. Oliver, orthodontist of Nashville, Tenn., was chosen as president-elect.

Houston, Texas, was selected for next year's convention city.

In the first days of the centenary convention, while the delegates were still gathering, messages were received by Dr. Merritt from President Roosevelt, Wendell L. Willkie, and Dr. Nathan B. Van Etten, president of the American Medical Association. Each message contained high tribute to the achievements of Dentistry.

Both President Roosevelt and Mr. Willkie expressed appreciation of the A.D.A.'s readiness to co-operate with the national defense program.

Of major importance to national defense and the dental profession's program to aid it were the results of a nation-wide dental health census, conducted by the Economics Committee of the A.D.A.

Preliminary figures from this census brought the dentists of America face to face with the fact that the nation, as far as dental health is concerned, "is woefully unprepared to meet the exacting requirements in industry and the military services in a time of possible national emergency."

Thirteen thousand dentists throughout the nation received 65,000 questionnaires in the census which was designed to secure an adequate cross-section of the population's dental needs—the first survey of its kind ever attempted.

Computation at the time the first figures were released was far from complete, Dr. Walls, Chairman of the Economics Committee, explained, adding: "But after careful consideration of the figures now available we must face the fact that immediate effort must be made by dentistry to meet a situation which may have a serious effect on the whole defense program."

"From an immediate military standpoint alone, if 1,000,000 men between the ages of 20 to 44 were drawn tomorrow from the civilian population, we estimate that 7,023,900 hours of dental service would be necessary to make them dentally fit," Dr. Camalier, Chairman of the Association's National Defense Committee, declared. "Of course, in such an event, dental requirements for admission would probably be lowered, but the efficiency of men accepted would be lowered perhaps in direct proportion."

This conclusion, he explained, was based on the needs of the male population aged 20 to 44, as shown by the Economics Committee census. It includes only fillings, partial and full dentures and extractions. Complete dental service needed for the same group would require 10,413,300 hours. Fixed bridges, removable bridges, impactions and prophylaxis were not included, because the military services would not demand their correction.

Dr. Walls explained that many weeks would be needed to conclude computation of the census and break down the figures into further categories. The preliminary figures, covering only the male population between the ages of 20 to 44, inclusive, show that the average man in the United States today needs 10.4 hours of dental service.

On the basis of this census and the experience with dental health in industry and the military in the last war, the House of Delegates adopted a three-point program for mobilization of America's dental resources to aid national defense.

The program, recommended by the A.D.A. National Defense Committee, calls for:

1. Sending to every registered dentist in the nation a questionnaire giving complete information on the dental personnel available for military purposes and for civilian needs.

2. Launching a program for co-operation with the Surgeons General of the Army and Navy to reduce the percentage of rejections for dental defects among volunteers and prospective draftees under the pending conscription law.

3. Setting in motion a special education program for dentists by distributing a course in Military Dentistry, now under preparation by the War Department.

The report and recommendations of the defense committee were presented to the House of Delegates by Dr. Camalier. The report outlined the work of the committee in the nine months preceding the convention, during which its members were in close contact with members of Congress, heads of federal agencies, the American Red Cross, the National Youth Administration, as well as Army and Navy officials.

A notable occasion of the convention week took place on Tuesday, Sept. 10. The entire day was set aside as "Harvey J. Burkhart Day," in honour of Dr. Burkhart, director of the Rochester, N.Y. Dental Dispensary and of the Eastman Dental Clinics in Europe. Dr. Burkhart, long hailed as the dean of American Dentistry, was feted at a luncheon in the Hotel Statler, attended by more than a thousand colleagues and friends.

The first general session of the convention was addressed by Senator James E. Murray of Montana, who said that a sound national dental program must be designed as an essential part of any national health program. Senator Murray paid tribute to the dental profession, declaring:

"In very recent years it has lifted itself from a vocation to a major profession; it has transformed its educational standards and has associated itself with the main currents of science and education."

Two other guest speakers were Dr. Earnest Albert Hooton, famous anthropologist of Harvard University, and Frederic Snyder, news analyst of Kingston, N.Y.

Mr. Snyder spoke on "Our Views and the Hour's News," at the second general session. He predicted that the final victors in the present European war will be the nations that exhibit the most character, not the most machine guns.

Dr. Hooton, speaking at the third general session, linked forms of government with biologic change, and said that the poor quality of modern human teeth is not an isolated phenomenon, but reflects a larger degeneration, seen at its worst in the totalitarian states of Europe.

Dr. Hooton urged upon both the dental and the medical professions a program of research into the pathology of dental decay and other diseases of the mouth. He added that he considered the provinces of the two professions already well-defined, with the autonomy of each thoroughly established.

He warned, however, that any program of research conducted together by dentistry and medicine should not jeopardize gains already made in fighting dental disease, or break down the necessary lines of cleavage between the professions.

In the general sessions, sectional meetings, programs of associated dental groups, clinics and exhibits, the convention presented a panorama of Dentistry's past, present and future. The entire arena of the Cleveland Public Auditorium was filled with scientific and historical exhibits, numbering 243 in all.

The exhibits were open to the public. Outstanding among them were the exhibits on national defense, the exhibit on the dental history of the Dionne quintuplets, and the Dental history exhibit displayed by the Baltimore Dental Society.

The defense exhibit consisted of a huge relief map, showing how the dental profession can be mobilized for the national defense program. The historical exhibit included many valuable documents, early textbooks on dentistry, and other material relating to Dentistry's origin 100 years ago, and its rapid progress since then.

In pictures, charts and models of the children's teeth, every stage of development in the dental lives of the famous Dionne quintuplets was vividly displayed in the exhibit brought from Canada by the quints' own dentist, Dr. Arnold D. Mason, dean of the dental faculty at the University of Toronto. This was the first time the exhibit had been shown anywhere.

On the recommendation of the Commission for Dental Research, the house of delegates voted $23,000, an increase of $6,000 over last year's appropriation to continue work already in progress and to extend research into other fields.

Five thousand dollars of the fund has been earmarked for the establishment of a fellowship in dental diseases research at the National Institute of Health, Washington, D.C., the research arm of the U.S. Public Health Service.

The fellowship will enable investigation into the causes of dental diseases, especially in the biological field—diseases such as caries and pyorrhea. The sum apportioned, it was pointed out by Daniel F. Lynch, secretary of the research commission, is an initial grant and will be supplemented at future dates.

Fifteen thousand dollars of the sum voted will be apportioned to continue work now in progress of investigating the physical properties of dental materials, in order to establish standards for such materials.

Associated dental groups which met during the convention week and during the week preceding it, included:

American Academy of Periodontology; American Academy of Restorative Dentistry; American Association of Dental Editors; American Association of Public Health Dentists; American Dental Assistants Association; American Dental Association Legislative Committee; American Dental Hygienists Association; American Full Denture Society; Association of American Women Dentists; Association of Military Surgeons of the United States, Dental Section; American College of Dentists; National Association of Dental Examiners; American Society of Oral Surgeons and Exodontists; The American Society for the Promotion of Dentistry for Children; International College of Dentists; Forsyth Alumni Association; Pierre Fauchard Academy.

Practice Management

The Cleveland Dental Society has adopted a resolution requesting the American Dental Association to establish a Section in Practice Management, this Section to be organized and conducted as are the several other sections of the Association.

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Research Bill Passes U.S. Senate

The Research Bill appropriating funds to the U.S. Public Health Service was passed by the U.S. Senate on September 12 and now goes to the House of Representatives for action. The bill appropriates $75,000 annually for the next five years for research into the cause of dental caries. An annual increase of ten thousand dollars is also provided—*Bul. of Chi. D. Soc.*

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Increase in Dues

At the Cleveland meeting of the A.D.A. a $2.00 increase in dues was voted, now making the annual dues $6.00.

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German Jaw Injuries on the Polish Front

Walter Flohr gives a further report on German cases of jaw injury in the Polish campaign in the Deutsche Zahnarztliche Wochenschrift (February 16, 1940). He describes how in the first days of the war dental surgeons were used for assisting in the treatment of wounded of all sorts, putting on plaster bandages and helping with anaesthetics or surgical operations of all kinds. After the first rush it was possible to think about the special treatment of jaw cases. Through general co-operation it was soon learned in which hospitals cases of jaw injury were to be found. A special section was set up at a hospital, suitable equipment collected, and the patients were assembled from all the neighbouring hospitals. The arrangement of such jaw stations immediately behind the front was particularly successful. The soldiers with face

and jaw injuries got proper treatment in the shortest possible time from experts. The heaviest share of the work fell on those previously trained in oral surgery, but the less trained dental surgeons quickly learned enough to be of considerable assistance. In addition to the severe cases there were many simple jaw fractures from the treatment of which the dental surgeons could gain experience.

It was the object of the jaw station to handle and pass back the cases as quickly as possible. This frequently entailed almost ceaseless work, the cases being often sent on to a base hospital in Germany the next day. This was necessary owing to the constant stream of wounded and the lack of beds. On the other hand the splinting of the jaws was rendered as permanent as possible. Provisional treatment takes almost as long and has to be done all over again. "Freehand" (wire arches fitted to the mouth, not to the model, wired to the teeth and united by rubber bands) splinting was the only possible method, being simple, needing no special assistance or laboratory, and being sufficient in most cases for complete treatment. A certain number of cases with tissue loss were not suitable for this method. A very large part of the time of the unit was taken up by the construction of wire splints. While this work followed the general lines of civil cases it was rendered more difficult by the severe splintering of the jaw-bones and especially so in cases where there was loss of substance. The latter were treated by "freehand" wiring to wire arches like the other cases, but after a few weeks this material was replaced by vulcanite or tin splints. In cases of gross loss of substance in the upper jaw extra-oral splints with headcaps were employed to fix the remaining fragments against the base of the skull. Special attention had to be paid to the air sinuses, which were often filled with small splinters of bone and pieces of soft tissue and heavily infected. They nearly always required to be cleared out. Fractures of the mandible were usually replaced without difficulty by the wire arch technique, but in cases where there was loss of bone the fragments could not easily be held for a long time by this method, and vulcanite or tin splints were needed at a later date.—*Abstracted article in Br. D. Jour.*

Abstracts
Council on Dental Therapeutics
American Dental Association

ACCEPTED PRODUCTS

Brundage Tooth Paste—J. R. Brundage, Inc., New York, N.Y. J.A.D.A. 27:1312 (Aug.) 1940.

Taylor's Tooth Powder—Wm. Taylor & Son Co., Cleveland, Ohio. J.A.D.A. 27:1513 (Sep.) 1940.

Hopkins Tooth Powder — Read Drug and Chemical Co., Baltimore, Md. J.A.D.A. 27:1513 (Sep.) 1940.

Gold's Tooth Paste — Gold's Drug Stores, Jersey City, N.J. J.A.D.A. 27:1513 (Sep.) 1940.

Mabley's Dental Cream—Mabley & Carew, Cincinnati, Ohio. J.A.D.A. 27:1513 (Sep.) 1940.

Potassium-Sodium Carbonate Mixture (Bisbee) —R. F. Bisbee, St. Paul, Minnesota. J.A.D.A. 27:1513 (Sep.) 1940.

PRESCRIBING SUGGESTIONS

Styptics—J.A.D.A. 27:1311 (Aug.) 1940.

Diluted Talbot's Solution — J.A.D.A. 27:1311 (Aug.) 1940.

Cavity Lining—J.A.D.A. 27:1512 (Sep.) 1940.

Antisialagogue—J.A.D.A. 27:1512 (Sep.) 1940.

Disinfecting Fluid—Cold Process—J.A.D.A. 27:1513 (Sep.) 1940.

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Legislative Trends in U.S.A.

Laws were enacted in Connecticut, Michigan, New York, Pennsylvania and Vermont permitting nonprofit corporations to operate medical service plans on a prepayment basis. Under these plans stated medical services and care are made available to the subscriber at the expense of the corporation.

The Vermont law specifically permits the formation of corporations "for the rendering of dental, osteopathic, chiropractic or chiropodic care."

A new Arkansas law authorizes agricultural cooperatives "to engage in any activity in connection with . . . the furnishing of medical, dental, health, hospitalization, nursing, or any related services, or medicines or medical supplies to its members and/or their families."

Bills for compulsory Health Insurance failed of enactment in seven states including New York.

A new Michigan law requires the several counties to provide for the rendering of medical care to indigents. Medical care is to include "home and office attendance by licensed physicians, dental services, optometric services, bedside nursing services in the home and pharmaceutical service." The law specifically provides that the private physician-patient relationship must be maintained.

A proposed plan was introduced in the Michigan legislature which would have required all persons "licensed to practice medicine, osteopathy or chiropractic to renew their licenses annually with their respective boards of examiners and to condition renewal on the presentation of evidence that the applicant in the preceding year had attended recognized classes or clinics for the purpose of pursuing postgraduate study of subject or subjects pertinent to his system of healing for not less than ten class hours of fifty minutes each during the year."—*J. A. M. A., per N.Y. Jour. of D., June,* 1940.

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First Permanent Molar

Recent dental examination of more than 10,000 boys and girls, 15 to 19 years of age, in New York City, revealed that loss of the first permanent molar teeth seriously affects the health and appearance of the losers, Dr. J. A. Salzmann, New York orthodontist reported at the centennial convention of the American Dental Association in Cleveland.

Dr. Salzmann, who is head of the dental service department of New York Vocational Schools, addressed the orthodontia section of the convention. He said the survey showed that harmful effects following loss of the first permanent molars are well defined in adolescent boys and girls nearing the final stages of growth and development.

Children who had retained their molars intact from their first appearance in the mouth, or preserved their usefulness by dental repair showed marked superiority in beauty of teeth and facial contour, Dr. Salzmann said.

Those who had lost the molars suffered greater tooth decay as well as derangement of the position of the teeth in the mouth, affecting "occlusion".

"When the dentist fills the first permanent molar teeth," Dr. Salzmann explained," he does not only simply perform a mechanical operation which preserves these important teeth for use in chewing, but he also helps to maintain the occlusal relationship of all the teeth in the mouth and indirectly tends to lower the amount of caries in the mouth."

Dr. Salzmann is editor of the New York Journal of Dentistry, editor on dentistry for Collier's National Year Book, and author of several books on dentistry, including "Principles and Practice of Public Health Dentistry."

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Average U.S. Woman

She marries at 26.

Her babies average 7 pounds 8 ounces each.

She is 5 feet 3 inches tall and weighs 130 pounds.

She goes to the movies 2,700 times during her lifetime.

She spends a total of 8 years at housework and sleeps 26 years.

She talks a total of 8 years.

She cleans her teeth 28,000 times, eats 3 tons of candy costing about $2,500 and grows a total of 38 yards of hair.

—*Capper's Weekly: May* 11, 1940; *A.D.A. Release.*

IN MEMORIAM

Thomas Volney Armstrong, of Calgary, Alberta, aged 43, died September 8, after a brief illness. He had practised dentistry in Calgary for 15 years.

Dr. Armstrong is survived by his widow, two daughters, his mother and one brother.

. . . SECTION FRANÇAISE . . .

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La Clinique Municipale d'Orthodontie

PAUL GEOFFRION, D.D.S., F.I.C.D., A.I.D.O., (R.A.)

Le 12 février dernier s'ouvrait à Montreal, au sein même de la Faculté de chirurgie dentaire de l'Université, une clinique municipale d'orthodontie, la première du Canada français.

Ce projet longtemps caressé par le Dr Ad. Groulx, directeur du Service de Santé et par le Dr Janvier Coupal, échevin de Saint-Jacques et membre du Comité Exécutif, ne fut pas réalisé du jour au lendemain. Mais ces derniers en s'appuyant sur des chiffres et sur ce qui se fait ailleurs, surent si bien défendre leur cause que le projet d'un centre de prophylaxie odonto-orthodontique prit corps peu à peu et fut enfin accepté à l'unanimité par les autorités officielles.

Ce premier pas étant fait, il fallait ensuite trouver un local approprié. Une clinique d'orthodontie nécessite une organisation si spéciale et rentre si peu dans le cadre actuel des cliniques dentaires ordinaires qu'elle doit posséder une existence "individuelle". Comme cette clinique existait déjà à la Faculté dentaire, 1570 rue Saint-Hubert, il fut décidé, après entente entre le Directeur de la Santé et l'Administration de l'Université, que la Faculté de chirurgie dentaire fournirait sa magnifique clinique d'orthodontie. On sait que cette clinique se compose d'une salle d'attente avec vestiaire pour enfants, d'une salle principale à quatre équipements, d'une salle pour la radiographie, la téléradiographie, la photographie anthropométrique et d'une salle d'archives dentaires contenant de nombreuses vitrines pour la conservation des différents moulages d'orthodontie.

Bulletin d'Hygiène cité de Montréal, mars-avril 1940

De son côté, la ville assume le fonctionnement de cette clinique en engageant à ses frais un orthodontiste recommandé par la Faculté et une technicienne experte en orthodontie, intentionnellement recrutée dans l'élément féminin parce qu'une femme est plus à même de capter la confiance de l'enfant, qui, souffrant de difformités faciales repoussantes, se sent toujours inférieur dans l'esprit d'autrui. La ville s'engage en plus, à tenir cette clinique ouverte tous les jours de la semaine de 9.00 à 12.00, du 1er septembre au 1er juillet et à payer tout le matériel utilisé pour la confection des appareils employés.

L'entente fut signée le 8 février 1940 et c'est depuis cette date que fonctionne à Montréal une clinique municipale d'orthodontie qui, nous l'espérons, pourra bientôt rivaliser avec celles de New-York, de Boston, de Toronto, de Paris, de Rome, de Bonn et de Buenos-Ayres.

Nous croyons utile de rappeler brièvement quelques notions d'orthodontie, car si nos cousins les médecins connaissent bien l'art dentaire qui, avec une patience de bénédictin, reconstitue les parties dévastées par la carie jusqu'au rétablissement intégral de la forme ou des parties détruites, ils connaissent moins bien l'orthodontie "redresseuse orgueilleuse" qui, par une technique souvent difficile, sort les lèvres enfoncées, redresse les maxillaires aplatis, efface les mentons en galoche et rend aux adolescents la grâce du sourire et le charme d'une beauté retrouvée.

L'orthodontie qui veut dire "dent droite" est une science qui a pour but la prévention et la correction au cours de la croissance des anomalies dentaires et des déformations maxillo-faciales.

Une anomalie dentaire est un cas médical relevant non de l'empirisme et du reboutage, mais de la thérapeutique: thérapeutique chirurgicale, physiologique et mécanique. Par son importance, la thérapeutique mécanique caractérise vraiment le traitement orthodontique; mais parce que la thérapeutique mécanique donne toujours les résultats les meilleurs et les plus précis, il ne faudrait pas conclure que l'orthodontie n'est qu'un simple métier ou tout au plus un art comme l'architecture. Il est vrai que les appareils employés en orthodontie sont des devis mécaniques, mais il ne faut pas oublier que ces devis mécaniques ne servent qu'à stimuler les tissus qui supportent les dents; ces devis ne sont efficaces qu'en autant que la force appliquée ne nuira pas à la fonction des dents ou des tissus qui les supportent.

Le traitement mécanique d'une lésion comprend toujours deux étapes successives: 1°) la réduction proprement dite qui la fait disparaître; 2°) la contention qui maintient le résultat acquis. La réduction mécanique oppose l'un à l'autre deux éléments: l'action d'une part, la réaction d'autre part. Alors que l'action est presque toujours purement mécanique, la réaction est à la fois mécanique et organique. L'importance des phénomènes organiques de réaction est telle qu'on peut dire qu'ils commandent et dirigent toute l'action mécanique.

La réduction mécanique se fait au moyen de petits appareils ancrés par des bagues sur les molaires et comportent toujours un arc soit vestibulaire, soit lingual. Ils portent de petits ressorts auxiliaires qui, appuyant sur les dents, les écartent par suite de l'aptitude biologique du paradentium et du proche voisinage dentaire à réagir tant que la force se fait sentir sur elles et jusqu'à ce que l'équilibre articulaire soit établi. Dans les forces minimes que l'on doit toujours employer, le déplacement s'opère par résorption osseuse régulière du côté de la pression et par apposition régulière du côté de la pression et par apposition régulière de la traction, en somme, ostéite raréfiante par pression et condensante par traction.

Les appareils faits de platine doivent être portés aussitôt la déviation commencée, car l'aptitude biologique des tissus à réagir est à son maximum chez les individus jeunes. La méthode n'est pas douloureuse et le succès est toujours certain. Un traitement d'orthodontie demande beaucoup de temps et de patience. Une seule

séance de traitement, un pansement quelconque, une extraction ne suffisent pas pour effacer un menton en galoche et faire d'une arcade en accordéon une mâchoire à peu près convenable. En général, un traitement chevauche sur plusieurs années et à la fin de la période active de traitement qui dure au moins deux ans, commence une autre phase dite de "stabilisation" qui peut durer à son tour plusieurs mois.

Chez les enfants qui n'ont pas atteint l'âge de 3 ans, le traitement orthodontique est plutôt simple; il consiste uniquement en conseils réitérés avec surveillance.

De 3 à 7 ans, une gymnastique spéciale s'adjoint aux prescriptions. Entre 7 et 14 ans, des appareils quelquefois simples, quelquefois compliqués sont nécessaires. Ces appareils sont, suivant les cas, portés durant un an, deux ans et exceptionnellement davantage; ils sont en plus renouvelés de temps à autre en accord avec le travail à exécuter et la durée du traitement.

De plus, on ne peut appareiller un enfant sans avoir fait certains travaux préliminaires; photographies anthropométriques, radiographies, demandes diverses de renseignements, prises d'empreintes buccales ou de moulages de la face.

Depuis l'inauguration de la clinique municipale d'orthodontie, des centaines d'enfants se sont présentés; ceci n'a rien de surprenant quand on pense que cet art ne s'adressait qu'à une clientèle riche. Il sera impossible de les traiter tous, car il faudra aussi envisager la question de prophylaxie orthodontique qui, en prévenant les anomalies maxillofaciales, empêchera des milliers d'enfants de s'en aller dans la vie avec des figures qui ne leur appartiennent pas.

Il est Aussi Coupable de Traiter pour Syphilis Ceux qui ne l'ont pas que de Condamner Ceux qui l'ont, à la garder

par le Docteur ARTHUR VERNES

Directeur de l'Institut Prophylactique

(Conférence faite à la Société d'Odontologie de Paris, le 2 mai 1939)

La sérologie de la syphilis est comme la langue d'Esope, la pire ou la meilleure des choses.

La pire, quand elle prétend juger d'une syphilis par un résultat positif ou négatif, langage d'autant plus absurde que, comme tout le monde le sait aujourd'hui, le positif ou le négatif courants ne prouvent ni n'excluent la syphilis: le positif peut être fourni par un sujet sain et le négatif par un syphilitique. . Pourquoi?

Parce que deux choses différentes peuvent prendre le même aspect.

L'urine nous offre un exemple banal. Par le chauffage, elle peut donner dans deux cas bien différents un précipité de même apparence, soit qu'elle contienne de l'albumine, soit que l'urine, par manque d'acidité, donne un précipité de phosphates. L'addition d'une ou deux gouttes d'acide tranche la question: le précipité d'albumine persiste, celui de phosphates disparaît.

De même, au cours de l'examen du sérum sanguin en vue de la syphilis, un précipité peut se produire, que le sérum soit syphilitique ou non, mais, dans ce dernier cas, le précipité disparaît lorsqu'on ajoute, non plus de l'acide, mais du sel marin.

Il en résulte que, pour un sérum examiné en vue de la syphilis, si le laboratoire répond par un résultat positif, cela indique que le sérum a donné un précipité, mais sans renseigner sur sa nature.

Vous entrevoyez par là combien de gens bien portants ont pu être déclarés syphilitiques par erreur.

Vous comprenez en même temps qu'un procédé de laboratoire, déjà capable de tromper sur le diagnostic, ne peut pas davantage fournir des indications valables sur l'évolution de la maladie, ni sur le traitement, traitement qui, basé sur des données fausses, condamne des légions de malheureux à garder leur syphilis.

C'est avoir bien mal compris les admirables travaux de M. J. Bordet et de M. O. Gengou et bien mal utilisé l'immense poussée qu'ils avaient donnée aux connaissances sur les propriétés du sérum sanguin.

Faisons un retour d'une trentaine d'années en arrière et remontons au point de départ de la sérologie de la syphilis à la lumière de nos connaissances actuelles.

Le réaction de Bordet-Wassermann repose sur les faits que voici:

Dans un petit tube on met le sérum à examiner, puis de l'eau salée, puis un réactif: de l'alcool dans lequel on a fait macérer de la poudre de foie desséchée d'enfant mort-né syphilitique, ou aussi bien (comme on l'a vu plus tard), de la poudre de foie non syphilitique ou même de poudre de bien d'autres organes d'homme ou d'animal.

En principe, ce réactif déclenche dans le sérum des syphilitiques un *précipité,* une *floculation,* comme on dit. Mais ce précipité est peu appréciable à l'œil nu et voici comment on s'y est pris pour le mettre en lumière en recourant à une propriété générale du sérum sanguin des mammifères et au pouvoir colorant des globules rouges.

Le sérum des animaux à sang chaud contient un ferment qui, comme tous les ferments en solution, est détruit par un chauffage au-dessus de 50°.

Je ne crois pas qu'on ait indiqué avant moi le rôle physiologique de ce ferment auquel j'ai donné le nom de *disperseur.* Voici pourquoi:

Agent d'un important phénomène de digestion sérique, ce ferment, toujours prêt à agir contre l'émulsion de graisses que le tube digestif envoie dans le sang par voie lymphatique, préside à la dislocation et à la dispersion des globules gras. Le sang, après le repas, est chargé de globules de graisse qui font qu'à ce moment un échantillon de sérum est trouble et opalescent. Quelques heures plus tard, toutes les particules désagrégeables qui avaient été introduites dans la circulation sont détruites, leurs éléments dispersés sont entrés en solution et la prise de sang faite alors permet de recueillir un sérum clair et limpide.

En accomplissant ce travail de digestion des graisses, le ferment disperseur s'use comme un acide s'use à neutraliser une base. Le sang d'un porc en période de digestion n'en contient plus en quantité appréciable. Dans l'intervalle des digestions le ferment disperseur se régénère et c'est à ce moment qu'il faut le prélever pour étudier ses propriétés en dehors de l'organisme.

Vous vous souvenez que dans notre petit tube de tout à l'heure se trouvent le sérum à examiner, de l'eau salée et le réactif choisi pour déclencher une floculation. Ajoutons-y une petite quantité de sérum de mammifère prélevé à jeun et mettons le tube à l'étuve. Au lieu de disperser des graisses qui n'existent pas dans notre mélange, le ferment s'emploie à disperser tous les flocons qu'il pourra trouver. Or, nous avons vu qu'il s'use en agissant. Si donc il a trouvé dans le tube une floculation à résoudre, à digérer, il est consommé par elle et, au bout de quelques minutes de séjour à l'étuve, nous n'en trouverons plus comme nous n'en trouvions plus tout à l'heure dans le sérum de porc en période de digestion. C'est ce que nous allons voir par l'introduction dans le tube d'un cinquième élément: les globules rouges de mouton, sensibilisés, c'est-à-dire fragilisés juste au degré nécessaire pour qu'en cas de

persistance du ferment disperseur ils puissent subir le même sort que les globules de graisse et que les îlots de floculation et être, comme eux, détruits.

On sait que lorsque ces globules rouges sont intacts ils restent en suspension dans une eau convenablement salée, qu'ils ne traversent alors le liquide que comme une personne traverse une rue. La pesanteur les fait descendre peu à peu au fond du tube; chute que l'on peut accélérer par centrifugation. Le liquide qui les tenait en suspension récupère alors son aspect primitif d'eau claire au-dessus d'un dépôt rouge, qui va tout à l'heure caractériser le résultat dit positif. Si, au contraire, on introduit ces globules rouges dans un liquide nocif, par exemple de l'eau pure, ils éclatent; le liquide dissout leurs pigments en prenant un aspect d'encre rouge qui persiste et sur lequel la centrifugation n'a plus d'action.

Or, pour donner aux globules rouges de mouton un degré de fragilité supplémentaire, on les a plongés dans du sérum de lapin qu'on a débarrassé de tout ferment disperseur par un chauffage à 55°. On a choisi le lapin parce que c'est un animal de laboratoire commode dont le sérum est nocif pour les globules rouges de mouton, nocivité qu'on a accrue en injectant auparavant au lapin des globules rouges de mouton quelconque.

Ainsi fragilisés les globules rouges de mouton n'ont plus besoin, pour être détruits, que de la présence du ferment disperseur. On a enlevé par chauffage celui du lapin. En reste-t-il dans le tube où nous allons les introduire? Dans ce cas, au bout de quelques minutes de passage à l'étuve, il y a fonte des globules rouges. C'est le résultat dit négatif quand le tube contient un liquide à un seul étage, c'est-à-dire une solution rouge indélébile depuis le fond jusqu'à la surface. Si au contraire les globules rouges n'ont pu être atteints, c'est qu'il y a absence du ferment disperseur qui a été consommé par neutralisation d'une floculation, et nous avons l'aspect dit positif, c'est-à-dire, dans le tube, un contenu à deux étages, pastille rouge dans le fond et liquide non teinté au-dessus. Telle est, dans sa simplicité, toute l'explication de la réaction de Bordet-Wassermann.

Or, qu'il s'agisse de cette traduction en couleur d'un phénomène de floculation ou qu'il s'agisse de l'appréciation directe de la même floculation dans tous les types de réaction par trop simplistes qui ont succédé au Bordet-Wassermann et qu'on a trop souvent opposés à la technique que nous avons patiemment édifiée au cours de ces trente dernières années, il y a, à la base, des conditions à respecter dans le choix du réactif employé pour déterminer une floculation avec le sérum syphilitique et dans son mode d'emploi si l'on veut écarter toute possibilité d'avoir une floculation quand le sérum n'est pas syphilitique. C'est là le fait fondamental.

On sait que nous avons isolé dans le sérum syphilitique une substance que nous avons baptisée "pallidine", du nom du microbe qui la produit, le tréponème pâle ou *treponema pallidum* de Schaudinn. L'extraction de cette substance du sérum, pour la peser sur une balance constitue une opération longue et difficile. Par contre comme on peut, dans des conditions bien déterminées, la faire floculer en présence d'un réactif spécialement approprié, et que, d'autre part, le photomètre Vernes, Bricq et Yvon, construit pour cet usage, nous donne une mesure précise des degrés croissants d'opacité produits par cette floculation, de 0 à 150 et au-dessus, dans leur rapport avec les poids de cette substance dans le sérum, le photomètre agit comme une balance optique; il permet de doser la pallidine au sein même du liquide avec sécurité et simplicité dans le minimum de temps.

C'est cette notion de mesure de la pallidine rendue tangible du jour où nous l'avons fait passer du domaine de la biologie dans celui de la chimie organique, qui a complètement transformé les conditions du diagnostic, du pronostic et du traitement de la syphilis. Le réactif que nous employons pour doser optiquement la pallidine, c'est-à-dire obtenir un précipité proportionnel à la quantité de cette pallidine et

mesurer l'opacité qu'il provoque au photomètre, c'est une solution alcoolique de poudre de cœur de cheval dénommée péréthynol, qui a fait ses preuves depuis 1917 et dont la composition n'a réclamé aucune modification depuis cette date.

Au moment de l'emploi, le péréthynol est additionné d'eau pour aboutir, grâce à une instrumentation particulière, à une solution colloïdale, de grosseur de grains déterminée. Cette préparation est employée à la dose d'une partie pour deux parties de sérum sanguin, restant entendu que pour que le précipité ait sa valeur, il faut qu'il soit obtenu avec ces proportions là.

Si, par exemple, au lieu d'utiliser deux parties de sérum pour une partie de péréthynol, on inversait ces proportions (deux parties de péréthynol pour une partie de sérum), on aurait immédiatement un précipité pour les sérums non syphilitiques, précipité ne contenant cette fois aucune pallidine, mais résultant du fait que la salure du sérum se trouve diminuée par la forte proportion de péréthynol qui ne contient pas de sel. C'est la raison pour laquelle il disparaît quand on en rajoute.

Si vous avez bien compris, comme je l'espère, un principe fondamental que bien des laboratoires ignorent peut-être encore, à savoir le dangereux voisinage dans un même tube, des conditions de production du précipité de pallidine ou d'un précipité sosie de même aspect, nous pouvons maintenant passer à l'application pratique du dosage de la pallidine qui permet de suivre les fluctuations de cette substance dans le sang et dans le liquide céphalo-rachidien, de tracer le graphique de ces fluctuations, et, guidé par cette courbe, de dominer l'infection syphilitique pour la guérir avec certitude et dans le minimum de temps.

Voyons ces applications pratiques en passant en revue quelques graphiques de malades où se trouvent portés, comme sur une feuille de température, les degrés de floculation obtenus, dont la succession forme la courbe (1).

En voici un premier exemple:

[L'auteur présente un premier graphique qui] s'étend de mai 1911 à mars 1939 sur une période de 28 ans; période de 28 ans au cours de laquelle le mode d'appréciation des degrés de floculation a varié avec les progrès successifs de la technique, mais varié de forme et non de fond; puisque, comme la suite de nos observations l'a montré, c'est bien la fluctuation de la pallidine que nous suivions colorimétriquement, avant de doser cette substance au photomètre, chaque degré de l'échelle du photomètre correspondant sensiblement, comme nous le savons aujourd'hui, à un poids de 1.7 milligramme de pallidine par litre de sérum sanguin.

[Sur le graphique de ce malade dont l'intérêt est moindre, dit l'auteur, parce qu'à cette époque le traitement était encore mal réglé, il fait remarquer] le profil montagneux des chiffres fournis par le sang et par le liquide céphalo-rachidien pendant la période d'infection, puis le retour au calme du lac, comme disait M. Painlevé; ce plateau horizontal se poursuit depuis 24 ans.

La première condition technique avait été pour nous de fixer les malades en les intéressant à leur graphique, graphique établi pour chacun d'eux.

Comme ils sont aujourd'hui plus de 260,000, tous ces graphiques sortis des classeurs, dépliés et mis bout à bout, constitueraient une bande de papier qui s'étendrait au moins depuis Dinan jusqu'à Ostende.

Cette accumulation massive de graphiques soigneusement tenus à jour en regard de l'observation clinique, constitue la documentation qui nous a permis de poursuivre une longue enquête sur l'activité des médicaments employés contre la syphilis.

Cette enquête, à quoi nous a-t-elle conduit?

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(1) L'auteur présente alors une série de graphiques que les circonstances actuelles ne nous permettent pas de reproduire, ce dont nous nous excusons. Cela nous oblige, sans altérer en rien la pensée de l'auteur, à modifier légèrement son texte. Ces quelques passages sont placés *entre crochets* [].

A savoir d'abord ce qu'il faut ne pas faire [et que montrent les graphiques présentés]:

Un traitement intermittent avec les V puisque [les descentes sont] suivies d'un retour offensif.

Tout traitement qui expose au même risque, quand un médicament bon pour un sujet ne l'est pas pour un autre, [ce dont l'auteur montre trois exemples pour le mercure, le bismuth, le bismuth et l'arsenobenzène].

Un bon médicament employé trop longtemps n'agit plus, comme vous le voyez ici. [Et l'auteur présente à l'appui des graphiques pour le bismuth, le mercure, un arséno.]

Qu'avons-nous donc été amené à faire? Exactement le contraire de ce qui précède; [ce que montre le graphique d'une] syphilis récente ou relativement récente (de quelques semaines à quelques mois) quand la ponction lombaire (toujours systématiquement pratiquée à l'entrée, hors le cas de chancre en voie d'apparition) montre l'intégrité du liquide céphalo-rachidien.

La chute de la courbe, une fois le traitement commencé, montre l'efficacité successive du mercure, du bismuth et de l'arsenic, et quand la courbe a atteint le 0, une prolongation du même traitement, dont la durée est commandée par la vitesse de chute du chiffre initial au 0 de l'échelle.

Quelques-uns d'entre vous, Messieurs, se souviennent sans doute de la mémorable campagne du successeur de Fournier, à l'hôpital Saint-Louis, contre le médicament d'Ehrlich, le Professeur Gaucher qui nous exprimait couramment le peu de confiance qu'il avait dans la thérapeutique de la syphilis, ne voyait qu'une chose: les retours offensifs redoutables qui succèdent à l'emploi du 606.

Impossible de l'en faire démordre, ni de lui faire comprendre que, si le 606 a comme contre-partie de son activité, en effet, le grave inconvénient de pouvoir provoquer des retours offensifs redoutables, ceux-ci peuvent toujours être prévenus, puisqu'on en est parfaitement averti d'avance par une ascension de la courbe de contrôle, ascension qui s'observe le plus souvent du deuxième au cinquième mois après la dernière injection arsenicale, rarement au cours du sixième, plus rarement encore au cours du septième, mais qui ne se produira plus jamais après le huitième mois révolu.

Je me suis servi de cette propriété pour domestiquer, pour ainsi dire, les arsenicaux et leur pouvoir provocateur.

De deux choses l'une: ou bien le signal d'alarme joue, je veux dire, le tracé remonte, et le traitement est à reprendre sans délai; ou bien le 0 se maintient; or, quand à partir de la dernière injection arsenicale d'un groupe de 3 au moins (dernière injection de 606, de novarseno ou d'acétylarsan), que j'ai appelée le "jalon", le tracé s'est maintenu huit mois de suite à 0, la ponction lombaire étant restée normale, jamais, je le répète, on n'a vu remonter le tracé.

De là à conclure qu'une syphilis qui ne peut être réveillée est éteinte, il n'y avait qu'un pas. Pour le franchir il fallait évidemment poursuivre indéfiniment la surveillance des sujets. C'est la ligne de conduite dont nous ne nous sommes jamais départi.

Nos malades, admirablement disciplinés, ont été maintenus en surveillance, à des intervalles de plus en plus espacés, *sans limitation de durée,* ce qui, en leur assurant à eux-mêmes toute garantie, est venu renforcer, année après année, la démonstration par le temps de ce résultat pratique pour l'individu et pour l'espèce, à savoir que celui qui, ayant été infecté par le tréponème, a été placé plus tard sous la sauvegarde de cette épreuve des huit mois, n'a plus rien à craindre ni pour lui, ni pour son entourage, ni pour sa descendance.

Le seul danger auquel il reste exposé est celui de contracter une nouvelle syphilis.

A ce propos, si comme l'expérience nous l'apprend, on peut à bon droit parler d'individus réfractaires à la syphilis, il est indiscutable, par contre, que d'autres y sont singulièrement prédisposés, tel [un de mes malades] qui, lui, l'a contractée quatre fois.

Le traitement doit donc dominer l'infection pendant un temps suffisant pour l'éteindre: chose relativement facile quand il s'agit d'une syphilis fraîche.

Mais nous avons à compter malheureusement avec les syphilis anciennes et surtout avec celles qui ont été aggravées par des traitements provocateurs.

Les organismes vivants prennent des habitudes et quand, au lieu d'anéantir le tréponème, on l'entraîne à la résistance par des assauts thérapeutiques qui lui laissent le champ libre, on prépare une exaltation considérable du pouvoir défensif du microbe et de sa descendance.

[C'est ainsi que pour un cas que je vous présente] le traitement, au bout de vingt-cinq ans, n'a pas encore abouti; le retour au 0 a demandé sept ans pour le sang et plus de vingt-trois ans pour le liquide céphalo-rachidien, au cours d'une partie qui n'est pas encore terminée.

Vous me demanderez certainement quelques renseignements cliniques sur ce malade. Ils sont consignés dans l'observation annexée à son graphique. Il s'agit d'un homme chez lequel commençait à se dessiner une paralysie de la troisième paire au moindre arrêt dans le traitement. Etat général toujours excellent, aucune interruption de travail, et qui plus est, père de deux filles, l'une de 18 et l'autre de 15 ans, en pleine santé, réussissant fort bien dans la vie, et qui, en fait—la mère n'étant pas contaminée—n'avaient pas la moindre raison d'hériter de la syphilis méningée paternelle.

L'excessive longueur de ce traitement vous montre la lenteur avec laquelle peuvent agir, dans certains cas heureusement rares, les médicaments de notre arsenal thérapeutique et combien il importerait qu'on en découvrît de nouveaux.

Ne croyez pas d'ailleurs que la médication par injections soit toujours la plus active. Tel l'exemple d'une syphilis méningée du même ordre, chez un homme qui avait été contaminé douze ans avant de venir nous consulter.

D'abord le traitement par injections ne donne que des résultats insignifiants. Ensuite descente graduelle du tracé de la ponction lombaire plus rapide que dans le cas précédent; avec quoi? Tout simplement par ingestion de pilules mercurielles (5 milligrammes de bichlorure de mercure par pilule) prises à doses filées dans la journée et en passant progressivement de 1 à 6 pilules par jour, cela par périodes de neuf semaines séparées par des intervalles d'un mois consacrées à la prise, *per os,* de comprimés de tréparsol ou de stovarsol.

J'ouvre ici une parenthèse. Ce sont des dossiers comme celui-ci et beaucoup d'autres parmi ceux qui l'ont précédé, qui nous ont fait comprendre l'immense parti qui peut être tiré de la thérapeutique mercurielle par ingestion, telle que l'employaient nos vieux maîtres, en y ajoutant toutefois, grâce aux enseignements de la courbe de contrôle, la nécessité de la répartition dans la journée et de l'augmentation progressive des doses.

Il reste évident que le traitement idéal ne peut s'appliquer d'abord qu'aux privilégiés des grands centres, pour faire plus tard tache d'huile.

Nous avons répété maintes fois, que, pour lutter contre le tréponème de Schaudinn, il faut nécessairement le concours du corps médical tout entier.

L'importance de cette collaboration nécessaire est devenue de plus en plus évidente à mesure que la sérologie s'est perfectionnée.

Elle s'étend à ceux qui ne peuvent faire appel aux médecins qu'à intervalles éloignés (habitants du fond des campagnes, coloniaux, marins) puisque les bienfaits d'une médication mercurielle par ingestion ne sont plus à démontrer.

Nous le constations une fois de plus tout récemment, au dispensaire du port de Dakar. On y distribue des milliers, par mois, de nos pilules Myosotis aux travailleurs du port et aux navigants de toutes nationalités. Les avantages qui en résultent pour la santé des intéressés se traduisent, chaque année, par un accroissement de ceux qui viennent réclamer une médication dont voici le principe:

Chaque fois qu'un traitement par injections continu et contrôlé ne peut être poursuivi, instituez le traitement par ingestion. Pendant combien de temps? Jusqu'à ce qu'un médecin prenne sur lui de l'interrompre, ce qui revient à dire jusqu'à ce que le patient lui accorde le temps nécessaire pour faire la preuve qu'il n'en a plus besoin, ce qui nous ramène à la pose du "jalon" et au contrôle des huit mois pour le sang et le liquide céphalo-rachidien.

En conclusion, Messieurs, il y a deux choses absurdes: traiter les syphilitiques n'importe comment et traiter pour la syphilis des gens qui ne l'ont pas, en laissant croire aux uns comme aux autres qu'ils doivent renoncer à fonder une famille ou à donner le jour à des enfants normaux.

Au moment où la question de la natalité se pose, pour la France, d'une manière particulièrement grave, il n'y a pas de temps à perdre pour remonter un courant aussi dangereux.

Après avoir vécu dans une douce euphorie, la France s'est ressaisie. Elle est aujourd'hui apte à comprendre qu'elle doit mettre au premier plan la sauvegarde de la santé. Parmi les maladies capables d'altérer héréditairement les individus, la plus importante est la syphilis, et pour avoir des enfants sains il faut commencer par nettoyer les parents. Or, en matière de syphilis, nettoyer veut dire *guérir*—puisque la syphilimétrie le permet—et non pas *blanchir* puisque les syphilis *blanchies* ne sont que des syphilis *rentrées*.

Les Fistules Cutanées d'Origine Dentaire et les Erreurs de Diagnostic *

par M. E. RODIER

Chef de Clinique à l'Ecole Odontotechnique

(La revue odontologique—juillet-août 1939)

Le sujet qui nous intéresse aujourd'hui n'a pas la faveur d'être nouveau. Cependant les archives des séances de notre Société nous apprennent que cette question n'a pas été souvent mise à l'ordre du jour depuis la guerre.

C'est pourquoi, je me suis permis de vous présenter une observation récente de fistule cutanée ayant occasionné une erreur de diagnostic.

Un de mes amis me signalait, un soir de février 1939, que sa femme de ménage, durant le mois d'août 1938, avait été opérée dans un hôpital parisien, pour une suppuration apparaissant au menton. Cette tentative chirurgicale n'ayant pas été couronnée de succès, et la suppuration s'étant rétablie presqu'aussitôt, je songeai à une origine dentaire possible, et lui demandai d'adresser la malade à la consultation de l'école, au service du professeur Dauzier.

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* Soc. Odontologique de France: Séance du 23 mai 1939.

Et le 11 février dernier, nous pouvions examiner Mlle H..... 29 ans, femme de ménage.

L'examen exo-buccal nous montrait une asymétrie de la région mentonnière, avec rétraction du côté gauche où l'on était intervenu chirurgicalement. Nour pouvions constater, en effet, une cicatrice de 3 cm. de longueur, intéressant le bord du maxillaire, au milieu de laquelle siégeait l'orifice fistuleux présumé, garni latéralement de croutelles jaunâtres.

L'interrogatoire de la malade ne nous apprenait rien de spécial concernant ses antécédents généraux personnels ou héréditaires et confirmait l'impression de bon état général.

Elle nous dit avoir vu apparaître il y a environ deux ans un bouton qui se mit à suppurer. Elle conserva cette petite affection, tout en essayant de la traiter localement par des compresses jusqu'au 21 septembre 1938. C'est alors qu'elle se rendit à la consultation d'un hôpital de Paris.

On procéda à un examen radiographique.

De l'examen clinique complété par la radio, quel diagnostic posa-t-on? Il aurait été intéressant de le savoir.

Peut-être pensa-t-on à l'inflammation d'une bourse séreuse mentonnière, dont l'existence était en honneur autrefois?

Quoiqu'il en soit, la malade fut opérée le matin même. On procéda à un large curettage, et l'intervention, aux dires de la malade, dura une bonne heure. Le praticien l'assura d'une guérison définitive.

C'est sans doute, en raison de ce pronostic, qu'il nous fût donné de l'examiner.

A l'examen endo-buccal, nos soupçons se portèrent aussitôt sur l'incisive latérale inférieure gauche, de coloration douteuse, fort délabrée et gardant encore une partie d'obturation au ciment synthétique. A noter une légère mobilité de la dent.

Cependant, comme la canine voisine couronnée servait de pilier de bridge, par prudence nous fîmes exécuter une radiographie.

Celle-ci confirma notre diagnostic clinique, par la présence d'une zone de raréfaction osseuse au niveau de l'apex de l'incisive en cause.

Ainsi s'établissait l'erreur de diagnostic commise, qui fut sanctionnée par le traitement.

Devant l'importance de la destruction coronaire de cette dent, sa mobilité, et la proximité d'une couronne, qui nous permettait d'ajouter plus tard une facette de remplacement, nous décidâmes l'extraction.

L'avulsion fut suivie d'un curettage très léger, dont le but était surtout de débarrasser le fond de l'alvéole de quelques fongosités. Lavages et bains de bouche habituels furent ordonnés.

Depuis lors, l'écoulement purulent n'a plus reparu.

Je me suis permis d'insister sur l'histoire de cette très simple observation clinique, parce que de nos jours encore se commettent trop d'erreurs de ce genre, l'origine dentaire qui est presque toujours à la base des fistules cutanées étant encore trop méconnue.

Il faut espérer que le rappel incessant des ces accidents, et à cette tribune, permettra de les éviter.

Notre collègue, M. Fouques, au courant de cette communication, m'a donné à son tour une observation personnelle sur le même chapitre. Je l'en remercie et me fais un plaisir de vous en donner connaissance.

Observation Fouques.—En juillet 1936, M. B. . ., 80 ans, ancien employé de bureau, nous consulte au sujet d'une fistule cutanée sous angulo-maxillaire droite dont il souffre depuis un an environ. Il habite la province et a été soigné par le chirurgien de l'hôpital, qui pendant six mois au moins, a tenté de multiples explorations et

drainages successifs. Devant l'échec répété de ses interventions, et pour essayer de poser le diagnostic de cette affection, il se décida à faire pratiquer une radiographie de la région. Celle-ci révéla nettement l'existence d'une dent de sagesse, complètement incluse et couchée parallèlement aux bords du maxillaire.

Au moment où nous recevons le malade, celui-ci a une température de 37°9, il souffre de douleurs spontanées, presque sans interruption jour et nuit, depuis 8 jours. La douleur est irradiée vers la région temporale.

A l'examen exo-buccal nous constatons la présence sous l'angle mandibulaire à droite, d'une fistule cutanée béante qui laisse s'écouler un pus filant jaune clair, dès la moindre pression. Cette fistule est au sommet d'une tuméfaction de consistance dure avec très légère fluctuation sans adhérence au plan osseux, peu mobile, de la grosseur d'un œuf de pigeon. A ce niveau les téguments sont légèrement foncés. Il y a une légère hypertrophie de la glande sous-maxillaire et adénopathie de la même région. La palpation de l'os est douloureuse.

L'examen endo-buccal ne révèle pas de trismus.

Le malade est édenté et porte une prothèse complète qu'il a d'ailleurs abandonnée depuis quelques jours. La muqueuse gingivale, pas plus du côté intéressé que du côté sain, ne présente de tuméfaction, de suppuration, ni de coloration anormale. La palpation du vestibule ne détermine qu'une douleur légère. La langue, la face interne des joues, le palais, sont normaux, et la sangle mylo-hyoïdienne est souple.

Le diagnostic est donc positif et facile, puisque le cliché radiographique nous montre une 3e molaire incluse avec large zone d'ostéïte raréfiante.

Nous proposons donc l'avulsion, et comme le malade est un parent, et que nous avons le désir qu'il soit opéré dans les meilleures conditions, nous le présentons à notre maître le Dr Sapet, dans le service de l'Ecole Odontotechnique, où il est opéré par lui.

L'intervention est faite rapidement, sans grandes difficultés. La résection osseuse est conduite à la fraise, la dent luxée est extraite, la cavité alvéolaire curettée. Le trajet fistuleux repéré, lavé, mêchage, suture.

Les suites opératoires furent excellentes, grâce au traitement classique de bains de bouche, de compresses chaudes et badigeonnages au mercuro-chrôme.

Le malade fut engagé à pratiquer lui-même des massages de l'orifice fistuleux, et six mois après, la cicatrice cutanée avait presque totalement disparu.

Pour terminer voici une 3e observation que me rappelait à ce propos, mon Maître et ami, M. Seimbille.

On présente un jour au Dr Gaillard, un malade porteur d'une fistule mentonnière depuis 17 ans. Après 7 ou 8 interventions chirurgicales n'ayant apporté aucune amélioration, il avait même pris le parti, pour l'esthétique, de laisser pousser sa barbe. Il en était réduit à écarter de temps en temps cette chevelure, pour se moucher le menton.

Ce n'est pas sans appréhension, qu'il se laisse examiner. Mais le Dr Gaillard ayant décelé la dent en cause, et lui ayant promis une guérison certaine sans la moindre intervention douloureuse, il se laisse convaincre.

Malheureusement en procédant à l'élargissement du canal, un foret de Gates se cassa, très loin même, dépassant l'apex. Toutes les tentatives entreprises pour ramener le morceau inclus furent vouées à l'échec.

Malgré tout, le Dr Gaillard, s'étant assuré de la perméabilité du trajet, entreprît son injection de créosote de hêtre. Elle ressortit parfaitement par l'orifice. Canal et dent, furent obturés, et la guérison définitive obtenue.

Ce traitement apparaît extrêmement simple. Il demande toutefois beaucoup de minutie.

Tout d'abord, pour être traitée avec succès, la fistule dentaire doit être à la fois

complète et perméable. Il faut éviter aussi de blesser le maxillaire en élargissant l'apex, car la créosote de hêtre, inoffensive dans un trajet fistuleux parfaitement organisé, peut produire des désordres graves si elle s'infiltre dans le tissu osseux sous-jacent et être cause d'une nécrose du maxillaire.

Ensuite il faut, précautionneusement, isoler l'orifice de la fistule avec du coton pour que le liquide caustique ne produise pas de brûlures.

Ainsi le succès de la thérapeutique vient, à son tour, confirmer l'étiologie de nombreuses fistules cutanées.

La Société Dentaire de Montréal

La Société Dentaire de Montréal a commencé ses activités de l'année 1940-41 par une conférence du docteur Paul Letondal, professeur agrégé à l'Université de Montréal. Le titre de la causerie était: "Les rapports de la dentition et de la nutrition chez l'enfant".

Le conférencier mit en valeur la teneur en vitamines et en sels calciques des principaux aliments habituellement ingérés par l'enfant et définit clairement le rôle et la quantité de cette nourriture que le petit doit absorber pour se construire une dentition saine et solide.

Le conférencier fut présenté par Gérard de Montigny et remercié par Lane Charpentier. Environ une centaine de dentistes de la ville et des environs assistaient à cette séance scientifique.

La prochaine réunion de la Société Dentaire de Montréal a été fixée au 3ième mercredi d'octobre, le 16, à 8.30hrs p.m.

Le Docteur James Conpland, d'Ottawa présentera une clinique sur "L'interprétation des films radiologiques".

Tous les dentistes sont invités.

GERARD DE MONTIGNY.

Le docteur J. Meek

La mort vient de frapper encore un coup inattendu. Qui eut jamais cru que notre confrère nous quitterait sitôt. La surprise fut douloureuse à tous, car quiconque le connaissait ne pouvait pas ne pas l'estimer. Il eut ce don particulier de se faire aimer de tous et de ne pas connaître l'antipathie.

Travailleur infatigable, il avait une nombreuse clientèle qu'il laisse, désemparée. Mais nous ne doutons pas que les plus peinés furent les membres de sa famille à qui nous offrons nos sincères condoléances.

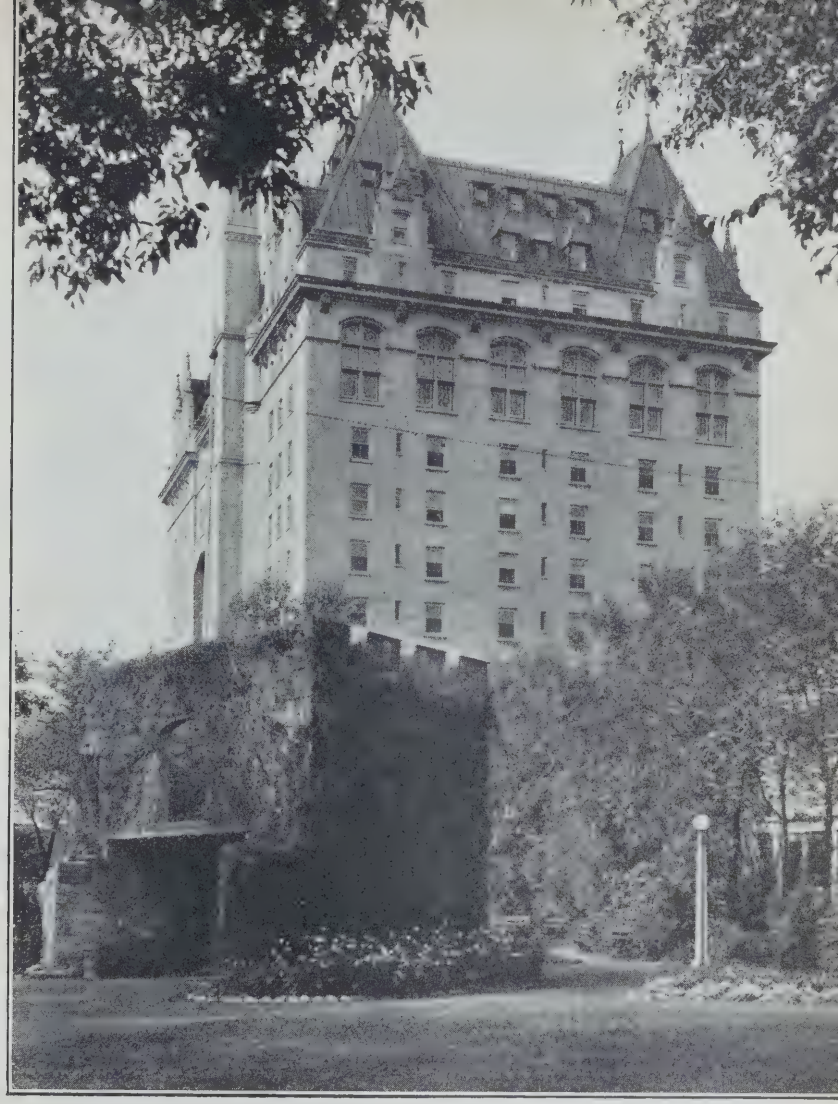
La rédaction.

On demande des Dentistes

Le Dr F. Hébert, de la Baie Comeau, obligé de donner ses services à l'armée, désirerait un remplaçant à son bureau.

Pour en connaître les conditions, on est prié de s'adresser au Docteur lui-même.

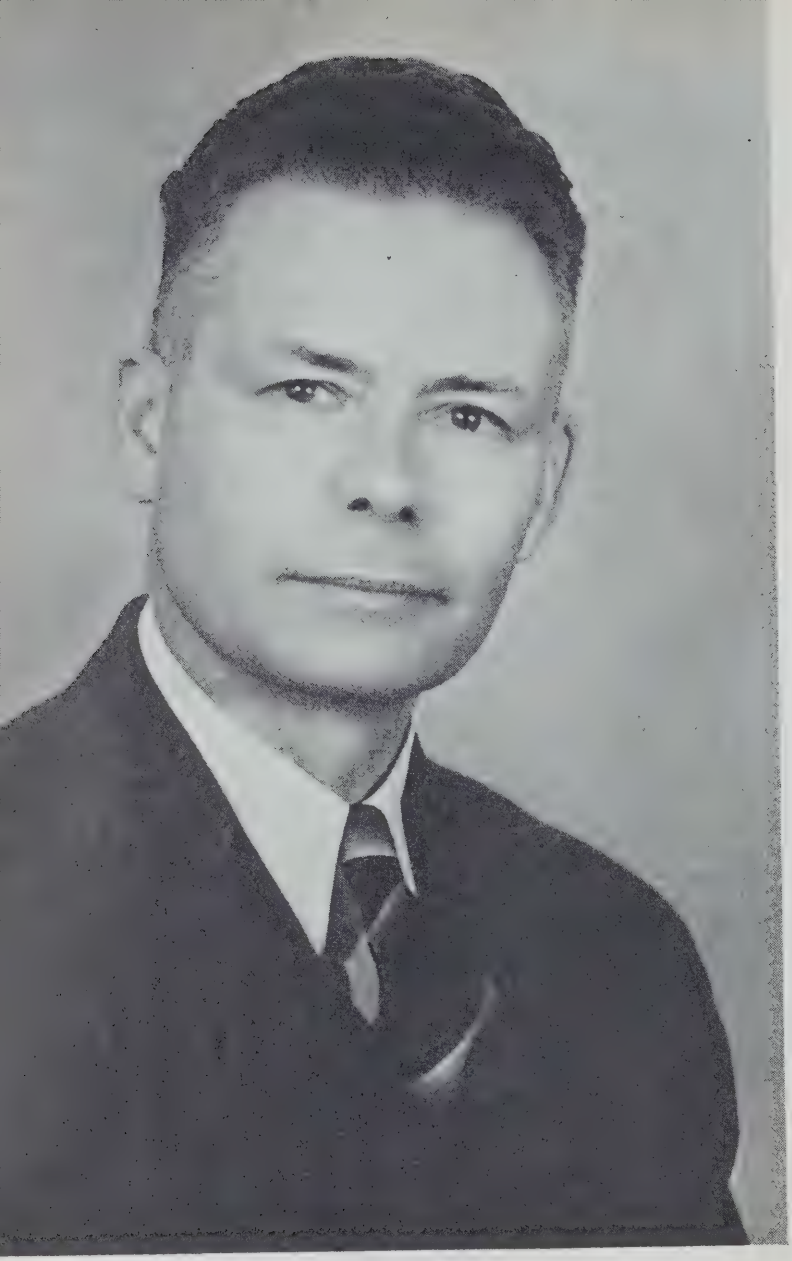
Le bureau du docteur Meek, par la suite de son décès, se trouve vacant. Mme Meek désire louer tout l'appartement, bureau et logement. Prière de s'adrésser à 3780, rue St-Denis, Montréal.



Courtesy Canadian National Railways.

Winnipeg Started Right Here

The Fort Garry Gate marked the entrance to Fort Garry, a trading post located near the confluence of the Assiniboine and Red Rivers. The history of the city of Winnipeg virtually commenced at this point. The first fort, named Gibraltar, was built by the North-West Company in 1806 and ten years later this fort was destroyed. In 1822 the second Fort Gibraltar was renamed Fort Garry after the amalgamation of the North-West Company with the Hudson's Bay Company. In 1835 Fort Garry was rebuilt, with stone walls running 280 feet east and west and 240 feet north and south. The present gateway was erected in 1850 when the fort was extended northward. In 1882 the Fort was sold and the walls demolished, excepting the gateway and in 1897 the gateway and park were presented by the Hudson's Bay Company to the city of Winnipeg. In the background stands the Fort Garry Hotel, a Canadian National Railways hotel of distinction.



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Fractures of the Maxillary Bones *

by JOSEPH A. DOHERTY, D.M.D., B.S., M.S., F.I.C.A., Boston, Massachusetts

TRAUMATIC lesions of the maxillary bones have become relatively common. The most important single factor influencing this growing incidence has been the advent of modern high-speed transportation. No longer is this type of injury considered of minor importance. Unsatisfactory end-results following incorrect diagnosis and improper treatment, especially in the complicated cases encountered today, have given to it a significance not previously associated with it. To assume the responsibility of treating fractures of the jaws requires a degree of co-ordinated knowledge of anatomy, physiology, orthopedics and surgery. Those who accept this responsibility without adequately possessing the above, not only are manifestly unfair to the patient, but bring upon themselves unnecessary anxiety and grief. The addition to hospital staffs of competent oral surgeons presages a trend toward the entrusting of the management of this type of bone injury to only those qualified by training and experience, to the end that the patient may be restored as quickly as possible to his former place in society. That this tendency is not pertinent merely to the civilian population but to the armed forces as well, is evidenced by the absence of those able members of this organization, who now proudly wearing the military uniform of their country, are upholding the prestige of Canadian oral surgery amid the rain of death and destruction in the Old World.

Symptoms

The abnormal features associated with fractures of the jaws are swelling, tenderness, difficulty in swallowing and loss of function. Most dependable of all symptoms is the inability to close the jaws in a natural manner. Though displacement of the fractured parts is originally the result of trauma, it is maintained by the muscles which find their attachment in the mandible. Unless prevented by the direction of the line of fracture the anterior fragment is depressed by the mylohyoid, geniohyoid, genioglossus and digastric muscles; the posterior is elevated by the masseter, internal pterygoid and temporal muscles. Parathesia of the soft tissues of the face is due to pressure on the branches of the fifth nerve. Haemorrhage is oftimes a factor of some concern at the time of injury.

A complete roentgenographic survey of the jaws should be made routinely; only by so doing can the location of, and the

* Read with illustrative slides before the New Brunswick Dental Society at the 45th Annual Convention held at the Admiral Beatty Hotel, St. John, N.B., Canada, July 8-9, 1940.

type of fracture be determined. Complete dependence upon the x-ray should never be placed to the exclusion of clinical findings. Fractures of the condyle, and more particularly the maxilla, do not always lend themselves to clear exposures. In maxillary fractures there is a pronounced tendency for the shadows of the cranial bones to blur and obliterate the fracture line. It is obvious that in these cases clinical examination is of great import.

Location of Fracture

Statistical studies[1,2] of large series of fractures have invariably resulted in the observation that the angle of the mandible is the most common site of injury, the next most frequent location being the mental foramen region. Bilateral fractures most often include these areas. For all practical purposes fractures of the body of the mandible should be considered compound; those of the ramus are of the simple type. Trauma to the region of the chin may be indicative of the existence of injury to the condyle. When such accompanying fracture occurs characterized by displacement, there is the tendency for the whole mandible to be retracted toward the injured side.

Fractures of the maxilla tend to be comminuted. The injury may involve only a part of the alveolar process, or may be more extensive accompanied by fractures of the malar and nasal bones. Since complete transverse fractures leave the severed portion suspended simply by the soft tissues, there naturally develops an elongation of the face. Occlusion of the teeth is frequently limited to only the posterior parts of the jaws. Excepting the complete type, fractures of the upper jaw are best handled by the same methods employed in treating similar injury of the mandible. It is expedient that in the treatment of the complete fracture of the maxilla the top of the head be used as a fulcrum in order to restore normalcy. Such material as orthopedic webbing is connected to a headgear and to a splint previously attached to the upper teeth. Gentle retraction of the maxilla is then instituted.

Treatment

Treatment involves the care of the soft tissues and the reduction and maintenance of the fragments of the bone in normal position until union occurs. It is fundamental that the re-establishment of the former relationship of the teeth can be accomplished. Simpler and more efficient procedures have replaced the time-consuming practices of the past. The following is an evaluation of the various devices condensed from a previous paper.[3]

Bandages: The usefulness of the Barton and other forms of headbandages is limited to the role of supplementary aid to other types of fixation. As a permanent means of immobilization it is of no particular value. In the case of swelling of the soft tissues during the use of the bandage, the resulting pressure tends to accentuate the pain which becomes intolerable.

Splints: Except in special cases the use of splints is unnecessary. Valuable time is lost during the period of construction.

Metal Plates: Fixation of the fragments by applying a piece of metal, such as the Lane plate, across the fracture-line is now considered archaic. The frequent development of osteomyelitis has relegated this method to the obsolescent group.

Direct Wiring: Edentulous jaws which do not lend themselves to other methods of fixation can be readily immobilized by direct wiring of the bone. Contrary to the advice of textbook authors and the writings of others, the intraoral approach has been found to be practical and efficient.

Intraoral Wiring: The most conservative and satisfactory of all procedures is

interdental wiring. Its advantages are numerous; occlusion of the teeth is always visible; it has none of the cumbersome characteristics of splints; lastly, it is neither irritating nor unhygienic. Dr. Thomas L. Gilmer of Chicago was the first to visualize the practicality of such technique. Recognizing the fact that all basic concepts of treatment were adequately satisfied, he devised two methods which have since borne his name.

The first method consists of twisting separate strands of pliable 22-gauge wire about the necks of adjoining teeth, crisscrossing the wires and then winding them

Fig. I

Gilmer No. 1 method of wiring. Single wires attached to maxillary teeth and then twisted with wires similarly placed about occluding teeth.

to others similarly attached to the occluding teeth. The other method was the use of metal arch which was made fast to the teeth of the maxilla and the mandible. Fine intermaxillary tie wires brought the jaws into apposition. Subsequent procedures based on these principles, notably the Ivy method, have proved very satisfactory.

Elastic traction for reductive purposes is coming into more extensive use as can be gleaned from a review of recent literature.[4,5] That traction is not novel in

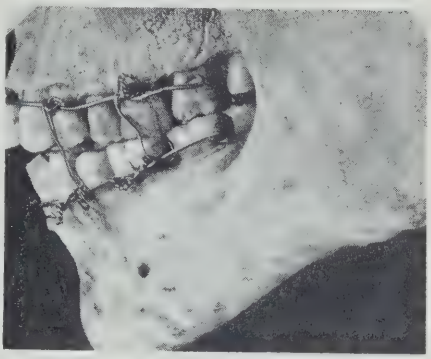

Fig. II

Gilmer No. 2 method. Metal bar adapted to labial aspect of maxillary and mandibular teeth. Fine intermaxillary tie wires used to bring about reduction.

medical practice is proven by the fact that the ancients recognized and employed it to restore limb length. In badly displaced or late treated cases the effectiveness of a gradual drawing process through the use of elastics has no equal. Of considerable value is such constant elastic power in the treatment of condylar fractures with displacement.

Anaesthesia

More and more is the oral surgeon becoming cognizant of the important role

Fig. III

Immobilization of fractured mandible using Gilmer No. 2 method supplemented by elastic traction.

of anaesthesia. An inflexible rule cannot be laid down as to the kind of agent to be employed. The patient's general condition, the presence or absence of edema and the extent of displacement are matters for consideration. Many cases can be handled satisfactorily under regional anaesthesia; on the other hand, there are instances in which a general narcosis of the inhalation, intravenous or rectal type is the one of choice. When nitrous oxide and oxygen, alone or in combination with ether, is selected, the maintenance of anaesthesia is enhanced by using a rubber catheter for intranasal intubation. Aspiration of mucous and foreign material is thus precluded.

Diet

It is obvious that since the function of mastication has been impaired the diet of the fractured-jaw patient must be of a selective nature. Nourishment is best obtained in liquids or semi-fluid foods of high caloric value. Eggnogs, milk, beef bouillon, cereals, fruit juices and vegetable soups are nutritious and easily assimilated. As a general rule patients tend to lose weight during the period following the accident but later, after adjusting themselves both physically and mentally, regain to a larger extent the lost poundage.

Complications

Union may be retarded by lack of approximation or by lack of fixation of the fragments, by the interposition of detached bone fragments, teeth, or a foreign body, by local infection, and by some fault in the vital reparative effort.[6] The early complications, such as respiratory embarrassment and haemorrhage, are usually automatically corrected by reduction. Cellulitis accompanying a fracture should be carefully treated. The mouth hygiene is of importance, the patient being instructed as to the cleaning of the oral cavity. If swelling progresses to the suppurative stage, incision of the external and intraoral tissues is necessary. Too much emphasis cannot be given to the necessity for adequate treatment of osteomyelitis. The same fundamental surgical principle for the handling of encapsulated pus applies; namely, the establishment and maintenance of drainage. Only when separated from live bone should sequestra be removed.

Conclusions

(1) Traumatic injury of the maxillary bones is of increasing incidence.

(2) Co-ordinated knowledge of the basic sciences, plus experience in the application of such, is essential to the proper treatment of injuries of the jaws.

(3) The method of immobilization should always be based on the principles laid down by Gilmer.

(4) Attention to the diet and oral hygiene is of great import.

(5) The establishment and maintenance of drainage of suppurative hard and soft tissues should be adequate.

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What Is a Profession?

by PERCY A. ASH, D.D.S. (Penn.), F.A.C.D., F.F.I.A. (Aust.), F.C.C.S. (Eng.), Sydney, Australia*

IN THE Journal of the Canadian Dental Association, Toronto, June, 1940, there is an attractive article entitled, "In Retrospection", by Paul R. Stillman, D.D.S., which I have read with much interest, particularly the section headed "Dentistry is a Profession", on page 279. In the opening paragraph of that section, Dr. Stillman seems to suggest that the dentists owe somewhat of a debt of gratitude to the profession of medicine for helping them to be accepted as professional men. He says, "The formula 'Dentistry is a Profession', doubtless originated with the physician—dentist group, but all dentists became interested, and the force of the formula was immediately felt. Certain physicians had become recognized as dentists, and these had a valid claim to recognition as professional men. The artisan-dentists accepted the formula as a personal compliment".

Further on, Dr. Stillman says, "The transition of dentistry from a trade to a profession has been a very slow process".

I submit that, at no stage, has dentistry been a branch of trade. *Trade* is the act of exchanging commodities—buying or selling. The commodities so exchanged or bought and sold again are, however, goods of use and value to the great majority, if not the whole of the general public —such as blankets, chairs, carpets, etc. These articles are made in bulk, irrespective of the requirements and fancies of any particular person and are offered for sale at prices established by the laws of supply and demand. How can it be said that the occupation of dentistry comprises such conditions as these? If, for instance, a thousand vulcanite plates and gold bridges were made at random by dentists, not a single one of them would fit the mouth of any individual and therefore as articles of merchandise they would be useless and worth nothing but the actual value of some of the material in them.

A dentist does not trade inasmuch as he does not buy and sell articles; he buys certain material and, by a combination of science and manipulative dexterity, he so fashions that material as to make it of value to particular individuals, each case requiring special knowledge and skill, which can only be obtained after years of careful study in theory and practice.

It is true that there is a mechanical side to dentistry but that is usually accomplished by a skilled artisan. The fact that the master dentist himself has been trained to do the mechanic's part of it, should occasion arise, surely does not detract from the valuable scientific knowledge he has to bring to bear in order to adapt the mechanical piece to the needs of the patient.

The ophthalmic surgeon performs operations on the eye; the dental surgeon performs the same on the teeth and jaws, of equal importance and skill and as necessary to the health of the patient. The dental surgeon adds to his theoretical

* EDITOR'S NOTE:—Dr. Ash is Lecturer in Dental Jurisprudence, University of Sydney and Editor of the Dental Journal of Australia.

For the information of some of our readers we would say that F.F.I.A. (Aust.) stands for Fellow of the Federal Institute of Accountants, Australia; and F.C.C.S. (Eng.), for Fellow of the Corporation of Certified Secretaries, England. These diplomas were gained after years of study and the passing of the usual examinations.

knowledge and skill, the ability to make artificial substitutes for the lost tissues. Because of this further artistic and technical ability, he is, apparently placed on a lower grade. One might just as well say that if the clever surgeon learned to make an artificial limb, he would thereby reduce the status of surgery and lower his own dignity and social standing.

For these reasons, I am of opinion that there is no occasion for the dentists to lean on the medical men. It is more likely that, during the past quarter of a century, dentistry has realized its great value to the communiy and has pressed that fact home with such vigour that the public has come to regard it as one of the most important of vocations in life. The universities and dental colleges, too, have ably assisted in keeping the course of study up to a high standard.

Dr. Stillman has given a new definition to the word "profession". He says it is "an occupation that properly involves a liberal education or its equivalent". A concise definition is rather difficult. In Webster's international dictionary, it is defined as "That of which one professes knowledge; a calling in which one professes to have acquired some special knowledge used by way either of instructing, guiding, or advising others or of serving them in some art, calling, vocation, employment, as the profession of arms".

After searching through many dictionaries, I am of opinion that the following definition, taken from an old edition of Nuttall, is the best—"A vocation, occupation or calling such as implies a measure of learning". The essence of this lies in the word "learning" and there can be no doubt as to what it means in this relation; it does not mean, for instance, the ordinary school education or the possession of the average knowledge of a person in any branch of trade but "knowledge acquired by study, especially of literature".

A professor in the Medical School of a well-known English University, wrote some time ago: "Among professions, besides the classic examples of the law, medicine, the church, the navy and the army, we must include the arts—authors, musicians, painters, sculptors, consulting engineers (but not plumbers), architects (but not builders), veterinary surgeons (but not dentists), chartered accountants (but not bankers), and, *perhaps,* journalists (but not politicians)".

"Veterinary surgeons (but not dentists)". Why those who treat animals should be placed on a higher plane than those who treat human beings, is one of those matters difficult of comprehension. It is to be assumed that dentists do not possess "knowledge acquired by study, especially of literature", while veterinary surgeons do.

The professor also said "Human vocations may be classified in several ways, according to one's point of view. From our present standpoint, they naturally fall into three categories—trades, crafts and professions".

Seeing that a satisfactory definition of the last-named, at least, is difficult, would it not be better to drop these three categories and substitute therefore, "Arts, commerce and sciences". One standard authority says "Arts" comprises those occupations which require skill and ingenuity, divided into the *liberal* or *fine arts,* and the *useful* or *mechanical arts;* the former those requiring the exercise of the mind more than that of the body, as poetry, painting, sculpture, architecture, music, etc.; and the latter those in which manual labour is chiefly concerned, including all the various trades and manufactures.

The same authority says that "Commerce" is an interchange of commodities between nations or individuals.

The sciences comprise something more than either of these. "Science" is best defined as "knowledge systematized regarding any one department of mind or matter; knowledge required by observation or experiment and arranged under general truths and principles".

These classifications must overlap to some extent; it is difficult, indeed, to place each calling in life in one particular category. On the definitions given, theology and medicine are sciences; banking, a combination of commerce and science; engineering and dentistry a combination of art and science; and so on, but probably every occupation known would fit in one or more of the categories mentioned. The order of status is of little importance and is left for those to discuss who are interested in matters of such small moment.

In concluding, I may again ask the question "What is a profession?" It is hard to find a satisfactory interpretation; indeed, the word seems to have become so much more elastic as my pen has glided on, that I am now rather disposed to fall in with Webster and give the meaning as "That of which one professes knowledge". On this definition—which includes anything from pugilism to astronomy—we need not be downhearted if our vocation in life is not recognized as a profession.

A Filing System for Interesting Dental Articles

by GORDON W. SPINKS, D.D.S., Hamilton, Ontario

WE ALL receive a large number of dental magazines and other scientific periodicals. Soon they become piled high on our shelves, and even threaten to out-grow the office or the library at home. Space in most offices is at a premium and must be conserved.

When this problem first presented itself I felt it would be best to have the yearly volumes of each journal bound in book form. Then the thought of binding copies together, which might only have one or two articles, or even a paragraph of real interest to me, seemed a bit ridiculous, so I solved the problem in the following manner. This idea is not entirely original but was suggested to me by Dr. Gordon MacLean of Toronto when I was still a student of the Faculty of Dentistry, University of Toronto.

When the journals come to the office, I examine them, and make a small "tick-mark" opposite the articles I intend to read. The preference for certain subjects and authors is quite natural with most readers. Later, when I have some leisure time to read, I undoubtedly find other choice writings worth keeping for some future use. These are noted carefully in the margin. The nurse is also instructed to be on the alert for subjects which she thinks may have a particular bearing upon the problems of the office. The magazines thus read, or even only scanned, are saved until some slack morning in August or December when the whole semi-annual collection is brought out for dismember-

ment. In this operation just the articles we have noted for filing are torn from their covers. I find there is a great desire to save everything I see but this urge is curbed as much as possible or the purpose of our system is defeated. Should two favourite subjects be printed on the same or opposite sides of a page they are placed to one side as these must be given special consideration when filing. We now have a sheaf of articles which is the "meat" of the journals so far as we are concerned. Another man might select a totally different set, but here is rugged individualism in practice.

The articles are now bound separately with a cover of yellow copy paper. Any cheap but tough type of paper will serve the purpose equally well. The title, author, date, and name of the journal is typed in the upper right-hand corner of the cover. They are then placed in folders in the filing cabinet according to the classification I have adopted for my system. The number corresponding to the listing in the "Subject Index", is typed on the upper left-hand corner of the cover. Thereafter filing is simple, the articles are returned to their correct folder in the cabinet by matching the number on the cover with that on the folder. The classification in the subject index may be altered to meet any requirement. It may be made larger or smaller at will. The numerical arrangement was suggested by an office supply company.

The articles which are found printed on either side of the same page, are bound under the one yellow cover with both titles printed in full view. It is filed according to the first title. A white card or a dummy bearing the second title is placed in its folder, a notation being made on the reverse side of the dummy stating the location of the original.

The articles are classified according to the following plan which we call the Dental Subject Index.

DENTAL SUBJECT INDEX

100—ANATOMY
- 101—Embryology
- 102—Physiology

200—DENTISTRY
- 201—Education
- 202—Legislation
- 203—Dental Praxis
  - 203.0—Physiology & Ethics
  - 203.1—Business

300—MATERIALS
- 301—Equipment
- 302—Supplies
- 303—Chemistry & Physics
- 304—Metallurgy & Mineralogy

400—MEDICINE
- 401—General
- 402—Oral Manifestation of Diseases

500—MATERIA MEDICA
- 401—General

600—OPERATIVE
- 601—General
  - 601.0—Root-canal Therapy
- 602—Caries
  - 602.0—Research
  - 602.1—Theories
  - 602.2—Treatment
- 603—Dietetics
- 604—Gold & Silver
  - 604.0—Inlays
  - 604.1—Foils
  - 604.2—Alloys
- 605—Ceramics
  - 605.0—Synthetic Porcelain

700—PEDODONTIA & ORTHODONTIA
- 701—Child Management—Psychology
  - 701.0—Operative
  - 701.1—Orthodontia

800—PERIODONTIA
- 801—Education of the Public
- 802—General

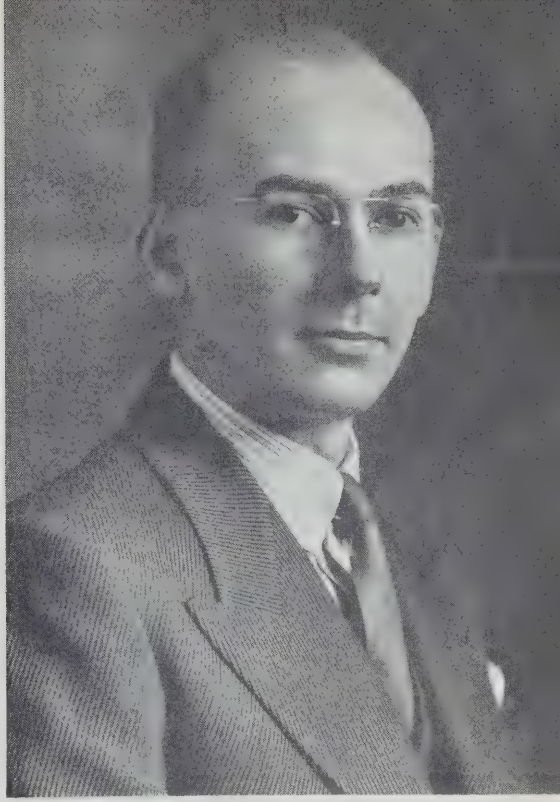
900—PATHOLOGY, BACTERIOLOGY, HISTOLOGY, BIOCHEMISTRY
- 901—General Pathology
- 902—Dental Pathology
  - 902.0—Focal Infection
- 903—Bacteriology
- 904—Histology
- 905—Biochemistry

1000—PROSTHETICS
- 1001—General
- 1002—Dentures
  - 1002.0—Immediate Service
  - 1002.1—Partial Dentures
- 1003—Crown & Bridge Work

1100—RADIOLOGY
- 1101—General
- 1102—Dental

1200—SURGERY & ANAESTHESIA
- 1201—Anaesthetics
- 1202—Dental Surgery
- 1203—General Surgery
- 1204—Fractures
- 1205—Sterilization

The filing folders are separated into



GORDON W. SPINKS

twelve main divisions numbering from 100-1200. Heavy dark green cardboard is used for this. The pieces are made the same width as the folders but stand about one-half of an inch higher. Regular divisional cards can be purchased for this purpose. They have small index-holders attached at the top in which the numbers and titles may be placed. The second division, e.g. 101.—Embryology, is differentiated from the third, e.g. 203.1—Business, by means of blue labels on the folders of the one and red on the other.

In conclusion may I say, the filing system will not only enable you to have the article you wish to use for reference at your finger-tips, but also gives you, in one folder, a complete assembly of all the articles of importance on any subject that has come to your office over a given period of time. You can take a folder home with you for the week-end to read up on any subject you may choose. It is like taking a short course or attending a clinic or a convention. It will help you prepare a paper for your next dental society meeting. Organizing such a system will give you a great deal of pleasure. It takes but a little time but this time is spent to great advantage.

2 *Ottawa Street North, Hamilton, Ont.*

Conventions

GREATER NEW YORK MEETING, HOTEL PENNSYLVANIA, NEW YORK, DECEMBER 2-6.

A program will be sent to members of the Canadian Dental Association upon request to Mr. Percy T. Phillips, Room 106A, Hotel Pennsylvania, N.Y.

77TH ANNUAL MIDWINTER MEETING OF THE CHICAGO DENTAL SOCIETY, STEVENS HOTEL, CHICAGO, FEBRUARY 17-20, 1941.

The Forum

• DENTISTRY FOR CHILDREN

by KENNETH A. EASLICK, A.B., D.D.S.,
Director, Department of Children's Dentistry, University of Michigan, Ann Arbor, Michigan.

(Excerpts from The Jour. of Missouri State Dental Assoc.)

DENTISTRY for children is the foundation upon which a successful and permanent general practice of dentistry must be built. It is well to remember that the child of today will be the adult patient and the parent of tomorrow.

Children who present themselves to a dentist for treatment have a right to expect the same high standard of service that we believe is important for adults.

The only logical method for establishing a dental service fee for children is an hourly fee schedule.

Children at even a very young age have decided likes and dislikes. We should remember that children like to be called by their first name; that they like to talk about the things they like to do; that they like to have the dentist explain what he is going to do and how he is going to do it; that they like being told when an operation will hurt; that they like a pleasant flavour in mouth washes and in cleaning pastes and powders; that they like being told they are good patients; that they like being given a souvenir after the work is completed; and that they like to take their own extracted teeth away with them.

On the other hand, it is also well to remember that children dislike to be kept waiting; that they dislike being told that an operation will not hurt when it will; that they dislike being stared at by the dentist while he is working; that they dislike being scolded for not sitting still or for not following directions; that they dislike being made fun of or being called a "baby"; that they dislike being compared with other children; and that they dislike having the dentist tell their parents that they are hard to work on.

Failure to fill small cavities for the prevention of large cavities; failure to restore the full mesiodistal diameter when deciduous teeth are filled; ruthless extraction; failure to retain space when early loss occurs; and failure to extract deciduous teeth when they should be removed are among the errors that result in many cases of malocclusion and deformed profiles.

Whenever possible, the first operation should be a prophylaxis since a prophylaxis can be performed without pain and because a prophylaxis can be used as a "build-up" for cavity preparation. A child's interest can be aroused and his co-operation secured by demonstrating with a rubber cup on the thumb nail of the operator and then on the child's nail. Before cavity preparation is begun a similar demonstration can be given by carving the child's initials on his thumb nail with a dental bur.

Suggested formula for a polishing paste:—

Flour of Pumice	170.00 grams
Borax	30.00 grams
Glycerine	75.00 c.c.
Carmine	0.25 grams
Oil of Spearmint	1.00 drops

Every dentist should use the child's first visit as an opportunity to teach the child and the parent the importance of good tooth-brushing habits and the correct tooth-brushing method.

Many dentists find it effective to present children with a "souvenir" at the conclusion of each appointment. Compound impressions can be made of many

small trinkets. The impressions can be poured with plaster, and when separated, can be suitably painted. All children appreciate these small gifts which should be presented as a "souvenir" and not as a reward for good behaviour.

• BACTEREMIA

by H. D. PALMER, M.D. and MYRNA KEMPF, B.A.

THE authors report (1) the study of clinical cases with postmortem examinations, and (2) bacteriologic examinations of the teeth and blood of persons undergoing tooth extraction. The purpose of the study was to determine the frequency of bacteremia and its consequences following tooth extraction.

Outline Summary of Bacteremia Study

1. Seventeen per cent of a group of eighty-two patients who had not had more than two teeth extracted had transient bacteremia.

2. In 13.4 per cent the organism was streptococcus viridans.

3. In four cases of subacute bacterial endocarditis the onset of septic symptoms dated from the time of dental extraction.

4. Bacteremia is present in an appreciable number of cases of severe oral sepsis independent of operation. The organisms find their way into the circulation from such foci.

5. Streptococcus viridans is constantly present in alveolar infection. When these infected areas are traumatized there is a dispersion of the organisms through the blood stream in a high percentage of cases.

6. The percentage was found to be roughly parallel to the severity of the infection and to the extent of the operative procedure.

7. In persons with a normal vascular system and normal defense to this form of bacteremia, the circulation is usually cleared of the organisms in a few minutes.

8. In persons with pre-existing rheumatic valvular lesions or congenital defects in the heart, this transient bacteremia, frequently following dental operations, may incite bacterial endocarditis.—*The Jour. of the A.M.A.*, 113:1788 (*Nov.* 11) 1939, *per Dental Digest.*

• VITAMIN C

DEFICIENCY of vitamin C is an important cause of disease of the gums recent clinical observation shows, Dr. Paul E. Boyle, professor at the Harvard University medical school declared at the centennial convention of the American Dental Association in Cleveland.

"Deficiency of several rather than a single dietary essential is the rule when nutritional disease is found in human beings. Much information has been obtained by the production of specific dietary deficiencies in laboratory animals and study of the pathologic sequences in the development and repair of the resultant diseases."

The gums, he added, are a common site for the appearance of deficiency diseases, as are the skin, the hair and the eyes.

Dr. Boyle described the results of recent laboratory experiments at Harvard showing that complete deficiency of vitamin C in guinea pigs causes their death in about four weeks. A cardinal sign of acute deficiency, he noted, is the loosening of the teeth so that they may be extracted easily with the fingers. Such failure of the suspending apparatus of the teeth in the living animal is accompanied by haemorrhage of the gums, he said.

These experiments demonstrate in a drastic way the effects of partial deficiency

of vitamin C in human beings, Dr. Boyle continued, making it clear that without the vitamin the connective tissue cannot form and repair itself when damaged.—*A. D. A. Release.*

• INCOMES FROM INDEPENDENT PROFESSIONAL PRACTICE

INCOMES *from Independent Professional Practice,* 1929-1936, a Bulletin by Simon Kuznets and Milton Friedman released by the National Bureau of Economic Research, deals with five professional groups—physicians and surgeons, dentists, certified public accountants, lawyers, and consulting engineers—including the great bulk of independent professional practitioners. Based on data collected by the U.S. Department of Commerce, the Bulletin considers the average levels of net income in these professions and their changes over time. Differences among the professions in these respects are then analyzed. This is followed by a detailed discussion of the degree of variability or inequality of income.

According to the data analyzed, consulting engineers received the largest average income from independent practice, with certified public accountants, lawyers, physicians, and dentists following in that order. Over the period of 1929-34, certified, public accountants averaged about $5,300 annually from independent practice; physicians, about $4,100; and dentists, $3,100. Because of deficiencies of the data, similar figures for the other two professions are not presented.

The temporal changes in average income are very similar for all the professions except consulting engineering. In the other four professions average incomes declined from 42 to 48 per cent between 1929 and 1933. These are about the same percentage declines as those experienced on the average by all gainfully occupied workers. Consulting engineers, on the other hand, suffered a decline of 74 per cent by 1932, the last year for which data were available for this profession. Average incomes in all the professions for which data were available rose from 1933 to 1936, the gains ranging from 20 to 38 per cent.

The factors responsible for the observed difference of 32 per cent between the net incomes of physicians and dentists are analyzed in detail. Two major groups of factors are considered: those implied in the phrase "the free working of the law of supply and demand" and those centering about restriction of entry into professional schools. The discussion concludes:

> "We are in no position to judge the relative importance of the possible causes of the restriction of entry into medicine. But whatever the causes, the effect of the restriction seems clear: it has made possible or has maintained a mean income in medicine exceeding that in dentistry by a greater amount than that which might be attributed to the free working of the much abused law of supply and demand. If we accept our figure of 17 per cent as an upper estimate of the excess of mean incomes in medicine consistent with completely free and moderately rational choice of profession, then about half of the observed differences between the incomes of physicians and dentists is attributable to restriction of entry into medicine."

The authors suggest that the greater restriction of entry into medicine than into dentistry is open to three interpretations. It might reflect, first, a scarcity in the number of individuals possessing the ability needed for the practice of medicine, second, a scarcity of training facilities, or third, a deliberate policy of restricting the number of entrants in

order to prevent so-called "overcrowding" of the profession.

The differences among individuals in the amount of income received are greatest in consulting engineering, much less in law and medicine and least in accountancy and dentistry. Particularly interesting are the figures for medicine and dentistry. These suggest that an individual is more likely to receive an exceedingly high income in medicine than in dentistry; but also, he is more likely to receive an exceedingly low income in medicine than in dentistry.—*N.Y. Jour. of Dent., March* 1939.

• ANACORIC EFFECT OF CHRONIC PERIAPICAL INFLAMMATIONS

by JULIUS CSERNYEI, M.D., Milan, Italy.
(Summary of paper in Jour. of D. Research, Dec., 1939.)

CHRONIC periapical inflammation attracts microorganisms from the blood, the bacteria remaining alive. This phenomenon is anacoresis. Treatment of teeth with vital pulps should be carried out so as not to provoke chronic periapical inflammation or an infected focus can develop. Teeth with putrescent pulps always have a chronic inflammation around the root end, which may also become infected hematogenously. They must be treated to eliminate the foci by surgical intervention or extraction where other operations are not possible.

• PERIODONTAL DISEASE

AS MANY people lose their teeth from disease of the surrounding tissues as from dental decay itself, Dr. Russell A. Sand of Fargo, N. Dakota, declared at the centennial convention of the American Dental Association in Cleveland.

Speaking before the section on periodontia, Dr. Sand warned that periodontal infection, though painless and seemingly innocent, is a dangerous source of infection for the rest of the body.

"One of the most fertile fields in tooth preservation," Dr. Sand said, "is the prevention and eradication of investing tissue pathosis. Probably as many teeth are lost today through periodontoclasia as from caries, even though caries is often called the most universal disease known to mankind."

Dr. Sand emphasized the danger of systemic disease spreading from focal infection in the supporting structures of the teeth. Such diseases may include digestive and intestinal disturbances, mild appendicitis and skin diseases like acne. These ailments can often be improved or eliminated by the removal of focal infection in the tissues around the teeth, recent dental experience has proved.

Periodontal disease, Dr. Sand concluded, is "a tinder box of infection waiting to be touched off by the spark of lowered resistance. The science of periodontia blazed the trail in the pioneering venture of saving teeth; let it continue this mission in restoring health and saving lives."—*A. D. A. Release.*

• PREVENTIVE DENTISTRY

TOMORROW'S citizens can be spared the host of mouth diseases now suffered by their mothers and fathers if new skills perfected by modern dentists in preventive treatment of the gums are made use of, Dr. R. H. Erwin of Portland, Ore., specialist in children's dentistry, declared at the centennial convention of the American Dental Association in Cleveland.

"The progress of dentistry and its conception of services to be rendered to the laity has, in the last 20 to 25 years, changed materially. Prior to this era the fields of practice were essentially interested only in reparative and replacement dentistry. More recently there has de-

veloped an increasing interest and desire to render preventive services to the adult patients. As the significance of prevention was realized, dentistry became cognizant of the fact that if prevention was to be of maximum value, it must be established during childhood. Since then, conscientiously applied dental services have been increasingly available to the juvenile patients."

Dr. Erwin blamed many dental ailments in later life on failure of parents to realize the importance of the baby teeth in the health of the adult mouth. He said:

"Probably the most flagrant violation of prevention of cycles leading to periodontal diseases is the oft-heard remark, 'Oh, I wouldn't bother with those baby teeth; they will come out later anyhow'. It is here that the seed of periodontosis is sown."

He continued: "The significant facts to be borne in mind in associating with children this progressive and destructive disease of the supporting structures of the teeth are, the recognition and correction of the predisposing conditions that would later manifest themselves in the individuals as adults of tomorrow and identify them as periodontoclasia cripples, the probable wearers of what might have been needless dentures."

Dr. Erwin stressed the need for education of the public in the importance of preventive dentistry and the special role of the baby teeth in this field.

"Advancement and acceptance of pedodontia—children's dentistry—" he concluded, "will reduce the incidence of periodontoclasia in the adults of tomorrow."—*A. D. A. Release.*

• CANCER

A STRIKING relationship between mouth infection and cancer of the stomach and intestines was pointed out at the centennial convention of the American Dental Association in Cleveland by Dr. Daniel F. Lynch of Washington, D.C., secretary of the Research Commission of the A. D. A.

Addressing the convention research panel, Dr. Lynch cited evidence from recent studies showing that more than eighty per cent of persons afflicted with cancer of the stomach also suffered severe dental infection in one form or another.

He described a study of 355 cases of stomach cancer at the Mayo Clinic, saying, "Severe oral sepsis was found in 80.2 per cent of the series with carcinoma." From this and other experiments, Dr. Lynch said, it seems probable that oral infection may be a source of chronic irritation and infection in the ultimate production of cancer of the stomach.

Experimental work by modern dentists, according to Dr. Lynch, has shown that many chronic infectious processes can be initiated in focal infections of the teeth or their surrounding tissues. Some authorities, he added, believe that stomach ulcers can be caused in this way.

Clinical tests have demonstrated that the removal of oral sepsis will cause the disappearance of certain diseases, Dr. Lynch stated, and this fact in itself is a guide to prevention of such diseases. He explained that "oral sepsis" means not only infection but any unclean condition of the mouth.

Dr. Lynch stressed the fact that simple removal of infected teeth is not always sufficient to prevent the initiation of other diseases, as people with all of their teeth out may still have residual infection in the jaws. "Sometimes," he said, "it is necessary to do extensive surgery in the mouth in order to remove all of the infection.

"There is no doubt," Dr. Lynch concluded, "but that infected teeth can cause diseases in other parts of the body and

that the removal of oral sepsis will cause the disappearance of certain diseases. It is also true that the removal of oral sepsis will always contribute toward a general improvement in the health of the patient."—*A. D. A. Release.*

• DENTAL LYMPH

EVIDENCE that dental caries may be related to abnormalities affecting a recently discovered fluid in the teeth called "dental lymph," which normally has the power to protect them against decay, was presented by Dr. Charles F. Bodecker of the Columbia University school of dental and oral surgery at the centennial convention of the American Dental Association in Cleveland.

"Though it is not yet known how such a protection occurs, the discovery of the fluid has already influenced techniques in operative dentistry."

"Cavity preparations and methods of placing fillings," he continued, "have been governed primarily by engineering principles. This is right and necessary, because the repair of carious teeth is a technical procedure. But now it is beginning to be realized that histological" —that is, tissue structures—"and biological factors are also involved in the filling of teeth."

The experiments on which the dental lymph theory is based were conducted by Dr. Bodecker and a colleague, Dr. William Lefkowitz, at Columbia. Dr. Bodecker described the experiments as follows:

"A dry dye was sealed with dental cement into experimental cavities which had been drilled into sound teeth of dogs and human beings. Later, sections of these teeth were prepared for microscopic examination.

Upon examination, he went on, it was found that, "The original dry dye had been dissolved by a fluid present in the dentine"—or tooth tissue—"and carried in two directions, that is, towards the surface of the tooth and towards the interior, the dental pulp. . . This fluid which is present in dentine and enamel, has been named 'dental lymph' in order to differentiate it from body lymph."

The activity of this fluid at the various stages in the life of a tooth affects its susceptibility to caries and dental fracture, and therefore variations in procedures of dental treatment are necessary, Dr. Bodecker concluded.—*A. D. A. Release.*

• COW BONE POWDER

FAR-REACHING benefits are seen as the result of recent successful experiments conducted at the Columbia University school of dental and oral surgery, in which regeneration of bone in the cavities overlying the teeth has been brought about by the use of boiled cow bone powder, Dr. Frank E. Beube of Columbia told the centennial convention of the American Dental Association in Cleveland.

Addressing the convention section on periodontia, Dr. Beube described experiments on dogs which led up to the clinical application of the findings to human beings.

"In an earlier experimental study," he said, "it was demonstrated that the insertion of boiled cow bone powder into a surgically produced cavity overlying the teeth of dogs induces accelerated generation of bone. . . Control areas in the same animals, in which cavities were prepared and treated similarly except that bone powder was not inserted into them, contained only fibrous tissue without regeneration of bone. . ."

A technique similar to that used in experimental animals was applied clinically on human beings to uninfected teeth condemned for extraction because of uselessness. "The results," Dr. Beube declared, "were identical with those ob-

tained experimentally with animals," and new bone and membrane were formed in the course of time.

One important practical application of the discoveries, Dr. Beube said, is in the use of bone powder after extraction as an aid to immediate full denture service. Quicker preparation of the mouth to receive the artificial teeth is made possible, he added and greater regularity of the bone ridge beneath the gums insured. Greater comfort for the patient also results since the process eliminates much of the tenderness caused by pressure of the dentures.

Use of bone powder for treatment of various pathological conditions of the mouth, including disease of the gums, has also been successful, Dr. Beube said, predicting increased success with the process for such diseases in the future.—*A. D. A. Release.*

• VITALLIUM IN BONE SURGERY

by D. M. CAMERON, M.D., Fellow in Orthopedic Surgery, The Mayo Foundation.

IN THE Section on Orthopedic Surgery we feel so strongly that vitallium is the best metal to use in bone surgery that we have scrapped all other metal plates, screws and nails in our hospitals and now have only vitallium.—*From Proceedings of the Staff Meetings of the Mayo Clinic, Sept.* 4, 1940.

• FRACTURED TEETH

PREVALENCE of fractured front teeth made specially vulnerable because of abnormal tooth and lip development is increasing among the present generation of adolescents, Dr. Charles A. Sweet, past president of the California State Dental Association, declared at the centennial convention of the American Dental Association.

"More than ninety per cent of such fractures, occur in teeth that protrude and have poor lip coverage. Ninety per cent, likewise, occur in the upper jaw."

The malformation and consequent vulnerability of the teeth, he added, are brought about in many cases by mouth breathing, simply as a bad habit or of the kind that is forced upon the child by nasal obstructions from the adenoids or from allergies.

Preventive treatment should be given at the earliest possible stage in the life of the child, by correction of the defects through orthodontic appliances, Dr. Sweet said, not alone to eliminate the malformation but also to provide the teeth the protection of lip coverage. Fractures, even very slight ones, are dangerous and can cause the death of the pulp, he pointed out.

But the emphasis in public education, Dr. Sweet concluded, should be on prevention of the widespread conditions which make fractures easy of occurrence. "Our first consideration of fractured anterior teeth," he stressed, "should be to give attention to these peculiarities of the present generation so that we may reduce to a minimum this difficult problem that every dentist has in his practice."—*A. D. A. Release.*

• HISTOLOGICAL EVIDENCE OF THE HARMFUL EFFECT OF CEMENT UNDER ORTHODONTIC BANDS

by WILLIAM LEFKOWITZ, D.D.S. Laboratory of Oral Histology and Embryology, School of Dental and Oral Surgery, Columbia University, New York City.

Conclusions of paper in J. D. Res., Feb., 1940

IN vivo experiments on human teeth have presented evidence that dental cement decalcifies enamel. Unknown factors allow the acid to penetrate only certain of the areas exposed to cement, resulting in islands of decalcified zones or white spots. The reason for this variable susceptibility is unknown. Preliminary observations indicate that varnish is a protective to the surface of the enamel, hence its use should be advocated before placing orthodontic bands.

PRINCE EDWARD ISLAND

Editor—M. H. GARVIN, Winnipeg

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Reading

A concise article on filing interesting dental articles, by Dr. Gordon W. Spink, appears in this issue of the Journal, which is worthy of special comment. Undoubtedly the average dentist piles up his magazines on the shelf and sooner or later throws them away and has no opportunity to refer to some important articles in case a difficult problem arises in practice calling for a careful perusal of all possible references. Dr. Spink has overcome this problem by an ingenious method of filing important articles, which could well be emulated by dentists generally.

Dr. Spink's procedure, however, in one particular is open to suggestion. When a journal arrives, instead of making time to read it thoroughly, he places a "tick-mark" opposite the article he intends to file and perhaps some day read. Many years ago I developed a filing system to take care of articles which I was sure would be of value at some future time and they were carefully filed. A large majority of these pamphlets, clippings, etc., are still in the files and have never been read.

Since assuming the position of editor of the Journal, and with over fifty publications arriving regularly, I have realized, as never before, the value of reading a journal at once upon its arrival. The filing system is commend-

able but becomes questionable if it sidetracks the desire to read all important articles just as soon as possible. Several years ago a prominent dentist wrote to me congratulating me upon the fact that I had been able to secure a certain article from the pen of a gifted physician for publication in the Journal. He said he had not read the article but was laying it aside to be read the following winter in front of the grate fire. I often wonder if the article was ever read.

To acquire the habit of *making time* to read the current dental literature, at once, upon its arrival is a priceless possession. The great advantage does not come from what we may remember of these papers, but from what they suggest to us. A good article may act as a match to ignite the powder which is already within us. Gibbon said, "My early and invincible love of reading, I would not exchange for the treasures of India." One can hardly read any issue of a good dental journal without having some thought suggested that can be put into practice, to great advantage. We form our opinions from these articles.

"Read great books also that come from great thinkers; formative books, inspiring, soul-lifting books; and remember that it is the books read before middle life that most mould character and influence destiny." Furnish your house with books for it is not easy to do something which is not noble and fine right after reading an inspiring and noble book. The Egyptians called books the soul's medicine.

We cannot too highly recommend Dr. Spink's suggestion that clippings be made of all fine dental articles but would add that they be carefully read before filing, and we would also include clippings from any other sources which would be likely to assist us in the future. Much of what we call genius in great men comes from just such practices.

"Take fast hold of instruction, let her not go; keep her, for she is thy life."

BOOK REVIEW

Proceedings of the Dental Centenary Celebration, held in Baltimore, Maryland, U.S.A., March 18-20, 1940, under the sponsorship of the Maryland State Dental Association and the American Dental Association. Edited by George M. Anderson. 1061 pages. 504 illustrations. Published by the Waverly Press, Inc., Baltimore. Price $5.00.

The Centenary of Dentistry has passed into the realms of history. It must have been a great task to accumulate all the addresses, essays, essential photographs and records of this great meeting and incorporate them into this very large volume called the "Proceedings." Due to lack of space, committee reports are not included but will appear in another volume.

The contents include the addresses given at the general sessions; the papers presented before the scientific sections; a description with photographs of the historical exhibits; an outline of the Historical Drama; papers given on Public Relations dealing with press, schools, radio and civic clubs; programs of the American College of Dentists; miscellaneous activities; commercial exhibits; and dental history.

The idea of the Centennial was conceived

more than ten years ago and since that time plans have been gradually matured until a program was produced worthy of the greatest and finest traditions of the dental profession.

Few in Canada were able to attend this great gathering but those who did were amply repaid for their trip. Whether our members were privileged to travel to Baltimore or not they should make every effort to obtain a copy of these "Proceedings," if any copies are still available. Only 1,500 copies were printed. All phases of dentistry are discussed by recognized leaders in the various branches of our profession. The book is splendidly edited and printed on fine paper and should prove most valuable to every practising dentist.—*M. H. G.*

To acquire the habit of reading is to construct for yourself a refuge from almost all the miseries of life.—W. Somerset Maugham.

CORRESPONDENCE

A Message to the Dentists of District No. 1, Province of Ontario

September 18th, 1940
Ottawa, Ontario

Dear Doctor:

A copy of this letter is being sent to every dentist in District No. 1. I wish to have each man's opinion and advice regarding certain matters, particularly affairs pertaining to the Canadian Dental Association before the Board meeting in October next.

Regarding the Canadian Dental Association I am not speaking as your representative on the Board, only as one of yourselves who has always been interested in the welfare of the Canadian Dental Association. I know some of its past history, as I was intimately connected with it from 1915 to 1925.

Sometime ago the President of the Canadian Dental Association appointed a Committee of Dentists in Toronto to consider the reorganization of the Association so that it might serve Canadian dentistry better. The findings of this Committee will be found in the last report of the proceedings of the Board of the Royal College of Dental Surgeons on pages 28, 29 and 30. This report was mailed you recently, and I hope you will read it. It will give you some idea of the many subjects considered and dealt with by your representatives.

In recent years the Board of the Royal College of Dental Surgeons has granted one dollar per member, per year, to the Canadian Dental Association to help its finances. There are about 1900 dentists in Ontario so we are contributing approximately $1900 a year to the funds of the Canadian Dental Association. The other provinces are also contributing their share on about the same basis. But even with this amount the Canadian Dental Association has not sufficient funds to carry on efficiently and pay its way as it should. The editor and business manager of the Journal have received little remuneration for the work they have done. They took over these duties with the understanding that when Canadian Dental Association affairs were in good condition financially they would be remunerated for their work in editing and managing the Journal. The Secretary has been paid a salary which does not compensate him for the time and work this office entails. I understand the delegates to the Association meetings are not paid their full travelling expenses. The Committee appointed by the President of the Canadian Dental Association recommends that the grant to the Association be increased from $1.00 to $4.00 per year. They feel that if Ontario, the wealthiest province of the Dominion would lead, the other provinces would follow. The matter came up at the last Board meeting in May of this year, and it was decided that the opinion of the dentists should be ascertained before taking action.

I would like to see the Canadian Dental Association finances put in a healthy condition and the men taking care of it given reasonable remuneration for their services.

The Canadian Dental Association has a definite work to do for Canadian dentistry, work which the Provincial bodies cannot do.

Such matters as federal taxes, duties, illegal use of the mails for mail-order dentistry, army dental corps and perhaps state dentistry before long.

At present the Canadian Dental Association Legislative Committee is working with the Wartime Prices and Trade Board regarding the 10% increase charged by the dental dealers on goods already on their shelves.

We have a well-functioning Canadian Dental Corps because the officers of the Canadian Dental Association were working with the military authorities in Ottawa just before the outbreak of war. As a result the Dental Corps was quickly formed, well manned, and is working splendidly.

Sometime in the future the profession of dentistry is going to have to consider the problem of State or socialized dentistry. Unless State dentistry is properly organized, dentistry as a profession may deteriorate and our services to the public will deteriorate too. Cheap, slip-shod, lazy dentistry will be the rule, instead of good health-improving services to the public. This will be the work of the Canadian Dental Association, and unless we have plans drawn up for the guidance of the Federal government, our profession will get what the politicians and lobbyists wish to give us.

I understand it cost the dentists of Alberta about $25,000.00 and those of British Columbia $35,000.00 to fight legal actions in recent years by those opposed to them as a profession. Ontario might be placed in a similar situation sometime, and if the Board of the College was not financially able to fight those people and interests, who do not understand our aims, which are to serve the public for the public's own benefit, our profession might be placed in a humiliating position.

Organized dentistry is intended to develop favourable conditions for the profession as a whole while insuring advantages to the individual members, and to the public whom we serve.

The youthfulness of our profession combined with a sort of inferiority complex is hindering substantial progress to our development. This can be only overcome by aggressive action by our leaders with the help, financial and otherwise, of all the members.

We must remember that Canada at present is thinly populated; between ten or eleven million people spread over a strip of country stretching from the Atlantic to the Pacific. We have a great future ahead of us and dentistry must be prepared to take part in its own professional development along with the national development that will take place. To do this we should have ample funds so that we can obtain the services of the ablest brains in the profession to look after our interests. So far this has been done by a few men serving without adequate remuneration and they are getting tired of it. Let us pay them decent salaries and we should receive better service and a more wholehearted interest in looking after our affairs.

Looking at this from a long range view I think we should make this financial sacrifice, which it will be in some cases, and give the Canadian Dental Association the financial aid it needs at present, but at the same time keep the capital of the Board in its present strong position, so it can, if necessary, protect our individual and common interest if occasion should arise.

We are being called upon to make sacrifices, financially and otherwise to preserve democracy and freedom. Should we not consider it our duty to make some sacrifice to benefit our profession also?

The Board members feel that the annual fee should be increased to $10.00 instead of $5.00 as at present. With this $10.00 we could increase our annual grant to the Canadian Dental Association from $1.00 to $4.00 and with the balance further increase our grants for Public Dental Health education and maintain our present principal or perhaps even increase it gradually. The annual fee in British Columbia, Alberta, Manitoba and Quebec is $10.00. In the other Provinces the fees are assessed annually. I understand they run from $6.00 to $10.00.

Now I am going to abide by the opinion expressed on the postcard enclosed. However those that are not returned; that is those of you who are not interested enough to mark your card will be considered in favour of the increased levy and will be counted as such. Please return the postcard as soon as convenient, within a week anyway.

Yours fraternally,

SYDNEY W. BRADLEY.

DENTAL CORPS NEWS

M.D. No. 10, Headquarters, Winnipeg

The C.D.C. of M.D. No. 10 is forming a bowling league with the intention of participating in military sports this winter.

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No. 10 Company donated over $100 to the recent Red Cross drive for funds, nearly all of the members contributing.

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Dr. G. I. Creasy, of Neepawa, has joined No. 18 Company.

The Ladies' Auxiliary is again actively at work. Now included in its support is No. 18 Company (Air).

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An unusual incident occurred at Camp Shilo one evening when a patient presented himself for treatment. He had been eating an apple when a particle wedged between his teeth and a partial upper denture. He endeavoured to dislodge the particle with his tongue when the clasp of the denture entered Wharton's duct and held fast.

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Information Form for Dentists

In order to secure for the Canadian Dental Corps a comprehensive picture of the reserve of officer personnel available for service, an Information Form has been authorized and a supply sent to the Secretary of the legal dental body in each province. A copy of this Form appears with this article.

Each dental secretary has been requested to mail one of these forms, accompanied by a covering letter, to every dentist in his province who is under fifty-five years of age and presumably physically fit, requesting that the form be completed and returned to him as soon as possible.

The information thus obtained is to be made available to the senior administrative officers of the Canadian Dental Corps in each province as soon as received, and it is expected to be of considerable assistance to them in the selection of dental officers.

The dental profession has been afforded a great opportunity to prove its value in this national crisis, and the profession will be judged by the manner in which this responsibility is met, and by the quality of the service it renders to our forces. With this in view, every effort has been made to maintain a high standard in the selection of dentists for commissions in the Canadian Dental Corps, and it is felt that any civilian dentist might well be proud to serve in company with the members of the profession already in the Corps.

It is noted with regret that a small group in the profession is taking advantage of the absence of fellow practitioners on service to absorb their practices and profit thereby. This is quite understandable if the type of dentist referred to is unfit for service but otherwise it is considered as quite unworthy of any true Canadian.

It must be thoroughly understood that this war is being fought to a finish and we are very directly concerned in it. One has only to look at the nations of Europe, recently overrun by the enemy, and picture ourselves in their position to realize its full significance. For instance, those of us who have a stake in this country would lose it if we come under the heel of a conqueror. Our savings, investments, life insurance and other assets would be lost. Do we realize that? If so, we must, therefore, do our utmost to safeguard our own interests. If our services are acceptable, we can best assist in the war effort by placing them at once at the disposal of our professional Corps for duty when required. If we are acceptable for service, why should we sit back and let the other fellow make the sacrifice, and do his part to protect our interests as well as his own?

It is hoped and expected that a large percentage of Canadian dentists will have already completed and sent in their questionnaire forms indicating their readiness to serve when required.

If you have not already done so, "DO IT NOW".

INFORMATION FORM

1. Surname.....Given Names .....
   Address .....
   Date of Birth.....Racial Origin.....Religion.....
   Single, Married or Widower.....Number of Dependent Children with ages
   .....

2. Date of Dental Degree.....
   By what University Conferred.....
   Post Graduate Courses.....
   .....
   Other Degrees held.....
   Conferred by.....University, Year.....

3. Are you licensed to practise Dentistry at the present time?.....
   In what Province?.....
   Is your practice General, Specialized or Institutional?.....
   .....
   Are you engaged in Teaching or Research?.....
   .....

4. Military Experience:
   (a) During the Great War—
   Rank ..... Unit .....
   Theatres of Service.....
   (b) Since the Great War—
   Rank ..... Unit .....
   Place .....

5. Do you desire an appointment in the Canadian Dental Corps?.....
   Do you believe yourself to be physically fit?.....
   If accepted, how long would you require to settle your private affairs?.....
   .....
   Please complete this form and forward it promptly in the enclosed addressed envelope.

This questionnaire must not be confused with any official form that may be issued in connection with National Registration Regulations, 1940.

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The Canadian Dental Corps

by MAJOR A. G. SMITH, D.D.O., M.D. No. 12

Questions are frequently asked in regard to the Dental Corps. Are they really doing good work? Are their amalgam fillings going to stand up? What about the dentures they are turning out? Is the work of the Corps going to be a credit to the profession of dentistry or will it bring discredit on all dental work in the future? These are pertinent questions and deserve the most serious consideration.

Every D.D.O. and C.D.O. in Canada realizes fully the gravity of the situation and this responsibility rests still more heavily on the heads of the Corps in Ottawa, particularly Col. F. M. Lott, Director of Dental Services.

In civil practice the dentist knows that he is up against stiff competition and he must do his best if he is going to hold his patients and gain new ones.

The incentive of getting more money for more and better work is a strong one and this enters into the picture to a much greater extent when a dentist is in civil practice. Nearly all of us need a mental kick periodically but there are some men born with an unerring instinct to go straight, irrespective of the money urge. There is something inherent in them that makes them abhor anything that is done in a slovenly, careless way. Anything that is second rate or is slipped over, grates on them so much that they are in an uncomfortable state of mind.

Many of this type of men are not only

strong enough to go the straight, decent way but they are able to help the weaker ones along the same road.

It can be said here, that in the Dental Corps most of the officers are conscientious and they themselves are their hardest taskmasters. It matters not whether their officer commanding is standing over them or will suddenly appear to examine their work, or may not be near them. They go on with their work to the best of their ability week in and week out with the great reward in view, "that of knowing a task is well done".

When it is all over, that is the working days of a dentist's life, there is nothing that will count so much as that of having put in good honest amalgam fillings.

The dentist who should get stars in his crown or the dental officer who should get crowns on his shoulder straps is the one who day after day stands faithfully at the chair and successfully saves teeth with first class alloy fillings.

"It is a wonderful thing to save a tooth but it is a serious thing to lose one." This should be kept in the mind of every dentist and he should realize that every time he inserts a faulty filling he may be shortening the life of a human being.

In the Dental Corps in various ways an effort is made to bring to the officers the vital importance of maintaining a high standard in all their work. They are made to feel that by making a man dentally fit that they are in a large way doing their bit in the great struggle.

When the war is ended and civil practice is resumed it is pointed out that the type of treatment accorded the soldiers will determine to a great extent just what they think of dentistry.

Careful painstaking work by the officers is appreciated by the soldier patient and his goodwill is invaluable. Full co-operation makes it much easier for the operator and this will become more or less universal in a unit. The goodwill of the men and their commanding officer is much to be desired.

A feeling of loyalty for the particular company to which the dental officer is attached is implanted as soon as possible and the feeling that his district must stand well up among the others is brought out to be of paramount importance. There is the incentive held out, of promotion for outstanding service, and a good name for the efficient service of any officer is something for which to strive.

An intangible something about being in the army, of wearing the King's Uniform and of the whole association with regimented men has a strong appeal for nearly every man.

The numbers of soldier patients, passing through the clinic every day, are bound to have many interesting conditions of the teeth and mouth that yield a source of valuable knowledge and experience for the different officers.

A young officer recently requested that he be left in the clinic rather than be placed in an executive position. He said he was getting just what he wanted with all the work pouring through the clinic and he had to make his living in dentistry.

The danger of acquiring a rough, brusque manner or letting your temper go is pointed out, for even a shrug of the shoulder may drive a patient away in civil practice or incur the enmity of a soldier patient. The rough diamond type is almost a thing of the past and as Dr. C. N. Johnson said, "a dentist should be a gentleman".

The present set-up of the Home War Establishment is one that should win the approval of every officer. The equipment being of the best quality and up to date, with additions or changes being made from time to time inspires a certain confidence and pride in the work.

A few months each year in a military camp gives zest and adds to the pleasure and to the benefits derived from the service.

There are the bugle calls at times from early dawn till sunset—and lights out. There are the movements of troops in their daily routine of training with the rhythmic swing of marching men and the association with the combatant forces smartens up the whole personnel of the dental unit and gives a lasting stimulus.

The Dental Corps today is made up for the most part of young men who have come up since the last war. To give balance, there is a sprinkling of older men, veterans one might say, who had previous experience either as officers or in the ranks.

Altogether they are a serious lot who feel their responsibility and are aware of the great opportunity. They are carefully picked with

due regard to character, conduct, and ability and it is felt that the profession as a whole can rest assured that C.D.C. dentistry is in good hands.

Dundurn Camp, Saskatchewan,
August 30, 1940.

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No. 3 Company, Headquarters Kingston, Ontario

The following is a list of dental surgeons who have been appointed to No. 3 Company, C.D.C., during the last few months:

Dr. A. M. Clark—Kingston, Ont.
Dr. R. G. Docks—Shawville, Que.
Dr. J. E. McMullen—Ottawa, Ont.
Dr. D. J. C. Hay—Hastings, Ont.
Dr. S. E. Stacey—Peterboro, Ont.
Dr. E. M. Box—Ottawa, Ont.
Dr. W. M. Myles—Ottawa, Ont.
Dr. J. C. Milne—Orono, Ont.
Dr. W. O. Vrooman—Kingston, Ont.
Dr. C. C. Smart—Ottawa, Ont.
Dr. E. Marshall—Ottawa, Ont.
Dr. J. C. Mabee—Gananoque, Ont.
Dr. L. J. Stuart—Peterboro, Ont.
Dr. J. C. Green—Peterboro, Ont.
Dr. H. E. Dobbie—Ventnor, Ont.
Dr. R. J. Moore—Smith's Falls, Ont.
Dr. A. O. Bradly—Wellington, Ont.
Dr. R. C. Wansbrough—Lindsay, Ont.
Dr. J. M. Clarke—Belleville, Ont.

Lt-Col. John C. W. Broom, D.D.O., M.D. No. 3, states that all officers in the district are enjoying the work of the Corps and are delighted with the excellence of the equipment.

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M.D. No. 2 Headquarters, Toronto, Ontario

Mrs. Schumacher, President of the Toronto Ladies' Auxiliary, reports the receipt of a letter from Lt.-Col. Trelford who recently has been appointed Assistant Director of Dental Services at London and given the command of the Intermediate Dental Base. A few paragraphs of his letter dated August may be of interest:—

"Dear Mrs. Schumacher:

First of all, may I tell you we have been receiving your cheques and they are more than appreciated. I am today in receipt of a box from Mrs. McDonagh enclosing sweaters, socks and wristlets. These are already handed over for distribution. We also received the cigarettes, which were distributed to all personnel, including the officers. The first packages were handed out to those we thought most needy. We have fifty-nine from Toronto to distribute to and I have Sgt. Major Dalrymple looking after this for me. It may surprise you to know that some of our detachments are many miles away, over one hundred in one case.

We are still very busy, seems that we can't get away from long hours. We work practically every night. The Orderly Room is open 24 hours of the day but we have had many changes lately and no doubt will have to let up sometime soon. I haven't had a week-end yet and this is true of many others too.

We have been honoured by being made members of the American Dental Society in London as well as members of the British Dental Association. It may interest you too, to know that the American Dental Association is fitting up a mobile unit, such as was discussed in Toronto, for Sir Harold Gillies and Mr. Kelsey Fry. It will be very completely furnished as a dental office.

While I am writing this I hear the drone of aeroplanes flying overhead. They fly most of the day and occasionally we see them at night. I saw the German plane that caused Captains Davis and Armstrong the excitement and am glad to say this bomber did not get very far before it was brought down."

(A great portion of Lt.-Col. Trelford's letter also describes many, of what he calls, comforts for the members of his corps, but these comforts as he describes them, are what we at home would consider real necessities of living. He closes thus,) "Will you please convey the thanks of the officers and members of this unit —1st Canadian Divisional Dental Company— to those of the Auxiliary who have contributed so much to our comfort.

Very sincerely,
W. G. TRELFORD."

Research, public education and care of the indigent by the state, is the three-point program of American Dentistry as it enters its second century of service to mankind, Dr. Arthur H. Merritt of New York, President of the American Dental Association, declared in his official address to the first general session of the A.D.A. centennial convention in Cleveland.

NEWS FROM THE PROVINCES

MANITOBA:

Manitoba Dental Association

The real zest with which the golf enthusiasts of the dental profession annually drop their picks and hatchets and hoes, and grabbing up clubs begin socking the shiny white little pellets round the landscape, was again in evidence in May 1940, and continued through the summer until the annual September finals which happened this year on the 18th.

As usual Elmhurst Golf Course was the scene of the last battle which was featured by a near tragedy when the Chairman of the Golf Committee, Dr. Dave McCord, shot a hole-in-one at the 145 yard 17th fairway. He may recover from the incident—we almost wrote accident—but life will never be the same again for him.

Following the finals, the usual much enjoyed banquet and distribution of prizes took place. The singing was again in charge of our past master, Garnet Leckie, and a resolution was passed to send cables of good wishes to two of the regulars who were absent overseas; Major Charlie Moore and Captain Art Buchanan. A donation was voted to the Athletic Patriotic Association to aid in purchasing sporting equipment for the troops.

The successful competitors in the various contests were as follows: Ash Cup: Winner, Bert Oja; Runner-up, Dave Johnson. Denco Cup: Winner, L. N. Green; Runner-up, Eric Hilton. Temple Pattison Cup: Winner, C. O. Wood; Runner-up, M. A. Deagle. Harris Cup: Winner, M. J. Averback; Runner-up, A. V. Johnson.

Low Net Scores

May: P. J. Gallagher, Bert Oja, Eric Hilton, W. Ivan Jackson.

June: D. A. McCarten, Frank Jones, C. J. Bannerman, A. Diner.

July: N. C. Carmichael, D. McCord, J. F. Brown, W. Ivan Jackson.

August: D. Brown, C. S. McLeod, J. O. Brown, Garth Merkeley, W. Dalzell and J. H. Merrell, the two latter from Portage la Prairie, where the July game was held. It was also attended by visitors from Morden, Carmen and Brandon.

Winners of Hidden Holes

May: Geo. McWilliams, Bert Oja, J. A. Dow, Dave Johnston, P. J. Gallagher, B. E. Brownlee, D. McCord, S. Goodman, H. Allen, J. O. Brown, A. V. Johnson, J. A. Christie.

September: D. McCord, M. A. Deagle, B. L. Toombs, J. Merrell, W. Dalzell.

Special Prize Winners

P. J. Gallagher, D. A. McCarten, D. Johnston, Frank Jones, J. A. Dow, W. A. Miller, B. E. Brownlee, D. McCord, C. D. McLeod, C. S. McLeod, H. J. Lawrence, R. Pelliser, Eric Hilton, J. O. Brown, M. J. Averback, W. J. Riley, A. V. Johnson, R. H. Murdock.

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Dental Nurses and Assistants

The regular monthly dinner meeting of the Winnipeg Dental Nurses' and Assistants' Association was held on Oct. 7, in the St. Regis Hotel.

At the conclusion of a short business meeting, presided over by Miss Juel Gross, Miss K. Moran of Portage La Prairie read a very interesting paper on "Office Routine and Dental X-ray," followed by Mrs. J. E. Abra who gave a brief résumé of the work being done by the Women's Auxiliary of the Canadian Dental Corps.

Miss Lavinia Veal closed the meeting with further interesting anecdotes on the Ontario Convention.

A. Scott, *Ed. Sec.*

ONTARIO:

Dentists for Ottawa Schools

At a meeting of the Collegiate Institute Board of Ottawa on September 23 it was decided to engage four dentists at $5.00 per morning each, for approximately 100 mornings to make examinations and report on the condition of the teeth of all students in the Glebe and Lisgar Collegiates, the High School of Commerce and the Technical School.—*Ottawa. Journal.*

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Appointed Director

Dr. S. A. MacGregor, of Toronto, has been appointed Director of Dental Education in the Public School of Forest Hill Village.

Dr. George Grieve

A delegation of colleagues, representing the Orthodontic Club of Toronto, surprised Dr. George Grieve in his office on the occasion of a recent birthday. They presented him with a pen and pencil set on behalf of the club. Many Happy Returns, "George!"

■

Dental Nurses' Alumnae

Miss Ruth Grimmon presided at the monthly meeting of the Dental Nurses' Alumnae Association at the Faculty of Dentistry on October 8.

Arrangements were made for registration of the Alumnae with the Canadian Red Cross, and also for completing the quilts made by some of the members during the summer months for the Red Cross.

Following the business meeting, Mr. Frisby, guest speaker, was introduced by Miss Betty Broadrib. The Alumnae received valuable information from his talk on "The Conduct of a Public Meeting." Miss Marjorie Jackson moved a vote of thanks.

HELEN L. MCKINLEY, *Corresponding Secretary.*

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War Fund

The members of the Ontario Dental Nurses' and Assistants' Association have heartily endorsed the plan to establish a War Fund in the name of the Provincial Organization.

Loretta McCaughey, of London, Ontario, has consented to act as chairman of the War Fund Committee and a convener has been appointed in each chapter.

■

Dental Nurses and Assistants

ONTARIO — Several members journeyed to Cleveland this week to attend the American Dental Assistants' Convention. The party included our President, Ferna Cook; President-elect, Iverna Rae (as official representative); Loretta McCaughy; Vice-president, Tomye Turner and Helena Logan.

MARION EDWARDS, Publicity Convener.

TORONTO—The October meeting of the Toronto Dental Nurses and Assistants was well attended, as members of the newly organized Chapter from Kitchener were welcomed as guests of the evening. They motored down with their President, Edith Inkster. President Irean Checkley presided. During the business session, war activities of the Club were discussed and great applause greeted the report that $100 had been raised by the recent Rummage Sale. The date of the Annual Bridge has been set for November 22 at Coles, Bloor and Yonge Streets. The rest of the evening was spent in listening to a delightful talk by Dr. Chas. H. M. Williams, on his studies among the Eskimos, followed by very fine movies of the trip. Dr. Williams was most gracious in response to the many questions asked. Miss Iverna Rae, President-elect of the Ontario Association, drove over from Hamilton with Mrs. Helen Ansell Smith, a former President of Ontario, to be with us at this meeting. Dr. P. J. Watson, of the Public School staff, was also in the audience.

CATHARINE SIMPSON, *Recording Secretary.*

KITCHENER—The first monthly meeting of the newly organized Kitchener District Dental Nurses' and Assistants' Association was held at the Forest Hill Gardens with dinner at 6:30 p.m. Eight Hamilton members were guests of the evening; also, Mrs. Ferna Cook, of Windsor, President, and Loretta McCaughy, of London. Following the business session Mrs. Iverna Rae presented the group with a lovely gavel, on behalf of the Hamilton Chapter. This was much appreciated. Words of congratulation were spoken by Mrs. Cook and Miss McCaughy; a letter from Marion Edwards, of Toronto, was read; and then followed an hour of bridge. Miss Edith Inkster, as First President, received the guests and adjourned the meeting until October 1.

RUTH CLARK, *Secretary.*

WINDSOR — The first fall meeting of the Essex-Kent Dental Assistants was held September 9 in the Canada Building, with Dorothy Scott, President, in the chair. The members approved the plan of the Ontario President, as mentioned in the "Bulletin" for the best means of helping the Ontario Association in its War Work. Miss Marie Nickle was elected as the new Treasurer. After the business session Dr. E. C. Young addressed the meeting on "Parliamentary Procedure," which proved very interesting.

WINNIFRED E. GRIER,
Corresponding Secretary.

Home on Furlough

Dr. and Mrs. H. J. Mullett have returned from Chengtu, West China, on furlough.

Mr. J. H. Mullett, son of Dr. and Mrs. Mullett, is in fourth year Faculty of Dentistry, University of Toronto.

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Impressions of the Eastern Ontario Dental Association

The 63rd Annual Meeting of the E.O.D.A. was held in Ottawa, October 14 and 15, with an attendance of ninety. The fact that the first day came on the official Thanksgiving day for the Dominion and that many men from the district were in the army was probably responsible for the smaller attendance than last year. However, the lack in numbers did not spoil or diminish the enthusiasm. One man was heard to remark "The Ottawa men are wonderful listeners". Each session had almost a perfect attendance.

The President, Dr. Ernie Sparks, of Kingston, conducted the sessions throughout. A very interesting and instructive paper on "Sterilization in Dentistry" was given by N. MacLeod Harris M.D., of Ottawa. Dr. Don. W. Gullett of Toronto, Secretary of the Board of Directors of the R.C.D.S., gave a very thoughtful and instructive talk on the relation of the Board of Directors to the profession and the University. This talk, together with one followed by Dr. S. W. Bradley Board Representative for Eastern Ontario, was particularly well received.

At the Luncheon, the guest speaker was Dr. Victor Pinard, an Ottawa boy and a graduate of the R.C.D.S. He went to Paris, France, in 1920 to practise dentistry and has now returned to Ottawa, having been forced out of France by the German invasion. He gave a most interesting description of his flight from Paris to several places in France, thence to England and finally to Canada. It was a real story of the war from the evacuee angle for the Dentist. Dr. Pinard left his operating room equipment covered with mattresses to prevent damage in case of bombing, little realizing when he was locking the door that he was on his way out of France for good. His story is one that could be told many times and still be interesting.

Dr. P. G. Anderson's lecture with lantern slides on "Inlay Technique" was very instructive as was the lantern lecture on "The Role of the Dentist in Intercepting Malocclusion" given by Dr. G. Vernon Fisk.

On Tuesday morning four short addresses were given by:

Dr. Felix French, Ottawa, on Acrylic Resins for Denture Bases.

Dr. Jas. P. Coupland, Ottawa, on Preoperative Medication.

Dr. W. L. Durant, VanKleek Hill, on Dental Analgesia.

Dr. J. A. Bothwell, Toronto, on Rebasing Full and Partial Dentures.

These were well received and appreciated.

In the afternoon an address was given by Lt. Col. George L. Cameron on the Canadian Dental Corps and the closing was a "Bang Up" dinner and entertainment with about 86 guests participating.

The newly elected officers of the O.E.D.A. follow—

PRES.—Dr. D. A. Roy McDougall, Ottawa; VICE-PRES.—Dr. W. L. Durant, Vankleek Hill; SEC.-TRES.—Dr. Art. B. Morrow, Ottawa; AUDITORS—Drs. W. C. Macartney and S. W. Bradley, Ottawa; ADVISORY COMMITTEE —Dr. J. P. Coupland, Ottawa, Dr. G. V. Tario, Pembroke, Dr. E. J. Walroth, Carleton Place, Dr. S. W. Bradley, Ottawa, Dr. Theo. Regnier, Rockland, Dr. Murray Purcell, Pembroke, Dr. Don. McKerracher, Arnprior.

J. A. BOTHWELL.

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Academy of Dentistry—Toronto

The annual dinner of the Academy was held in Eaton's College Street on October 21st with well over 250 members and guests in attendance. Dr. Edmond T. Guest, the President, presided as toastmaster and in his greetings indicated to those assembled something of the well prepared plans for the year's programme. He spoke of the very friendly and helpful attitude of our colleagues from United States who have been invited to take part in the year's educational activities. Many guests were present—Dr. Carl Moyle, President of the Hamilton Dental Society and a delegation of colleagues, Dr. Wm. Magner, President of the Academy of Medicine, President L. T. Hogan of Royal College of Dental Surgeons, accompanied by the other members of the board which happened to be in session. Col. F. M. Lott, Director of Dental Services and Officer Administering the Canadian Dental Corps, accompanied by Lt. Col. Harvey Bean,

D.D.O. District No. 2 and Major Elgin Wansbrough, Command Dental Officer, No. 1 Training Command, R.C.A.F., Mrs. Schumacher, President of the Ladies' Auxiliary, accompanied by Mrs. W. G. Trelford were also guests of the society and the lady members of the Academy were their hostesses.

Capt. J. W. McDonald, posted at Camp Q, a Past President of the Association, wired his greetings and this was much appreciated.

The members brought honour to the society by electing Dr. George W. Grieve an honorary life member. Dr. McDonagh, after a brief eulogy, made the presentation.

Dr. Harvey Reid presented a Past President's jewel to Mrs. W. G. Trelford in the absence of Lt. Col. Trelford who is on active service in England. In concluding his remarks Dr. Reid said, "I present this jewel to Mrs. Trelford with mixed feelings, first with regret that "Bill" is not with us in person to receive it and second with great satisfaction that we are so ably represented at the heart of the Empire."

The guest speaker of the evening, presented by Dr. E. A. Grant, was Mr. B. K. Sandwell, Managing Editor of the Toronto SATURDAY NIGHT. Mr. Sandwell's address, "Yesterday, Today and Tomorrow," proved most interesting and fitting for the occasion. His theme seemed to be a re-orientation of social values resulting from present world conflict. It was a scholarly and masterly address given in Mr. Sandwell's own inimitable style.

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R.C.D.S.

Dentists throughout Ontario have received notices that the biennial election to the Board of the Royal College of Dental Surgeons is at hand and nominations for district representatives are in order. It may be interesting to Ontario dentists to know who represent the various districts at present—

District 1. Dr. S. W. Bradley, Ottawa; District 2. Dr. D. W. Gullett, Toronto; District 3. Dr. F. A. Blatchford, Fort William; District 4. Dr. H. W. Reid, Toronto; District 5. Dr. G. H. Campbell, Orangeville; District 6. Dr. L. D. Hogan, Walkerville; District 7. Dr. J. E. Amos, Brantford; District 8. Dr. C. A. Nelson, St. Catharines.

DEAN A. D. A. MASON—Faculty of Dentistry, University of Toronto.

London Dental Society

The first regular meeting of the London Dental Society for this term was held in the London Hotel on Saturday, October 19th. The wives and assistants of the dentists were the guests of the evening. Dr. Gordon Agnew of Toronto, home on furlough from China, addressed the well attended meeting. Dr. Agnew's address on his work among the primitive peoples of Tibet and China was markedly educational and timely. Sincere thanks were expressed on behalf of the society by Dr. H. R. Sykes to Dr. Agnew. Mrs. Agnew accompanied Dr. Agnew in his visit to the society.

1940-41 officers of London Society are as follows—

PRESIDENT—Dr. D. A. Campbell; ACTING PAST PRESIDENT — Dr. F. F. Baker; SEC.-TREAS.—Dr. G. F. Walden; MEMBERS—Drs. W. Y. Hayden and A. F. Barnes.

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Resolution as Passed at a Regular Meeting of the London Dental Society, October 19, 1940

WHEREAS the advisability of greater financial support to the Canadian Dental Association has been brought to the attention of the Profession of Dentistry in Ontario by the Report of the Advisory Committee appearing in the Annual Report of the Board of Directors of the Royal College of Dental Surgeons of Ontario for 1939-40 and

WHEREAS this increased financial support to the Canadian Dental Association, as recommended in the Report of the Advisory Committee and adopted by the Board of the Royal College of Dental Surgeons of Ontario, would necessitate an increase in the annual fee to the Royal College of Dental Surgeons of Ontario,

BE IT RESOLVED that the London Dental Society goes on record as being in favour of an increased licentiate fee, in order to adequately support the Canadian Dental Association, and

BE IT FURTHER RESOLVED that a copy of this resolution be sent to the District Representative, Dr. L. D. Hogan, and to the Secretary of the Royal College of Dental Surgeons of Ontario, the Secretary of the Canadian Dental Association and the Editor of the Journal of the Canadian Dental Association.

Resolution by Grey-Bruce-Dufferin Dental Association

The following resolution was passed by the Grey-Bruce-Dufferin Dental Association at a recent meeting held in Owen Sound.

The Grey-Bruce-Dufferin Dental Association takes cognizance of the fact that the Canadian Dental Association requires greater financial support.

The above named society also takes cognizance of the fact that the increased financial support would mean an increase in the annual fee to the Royal College of Dental Surgeons of Ontario.

Because of the above recognition the Grey-Bruce-Dufferin Dental Association goes on record as being in favour of an increased annual licentiate fee in order that the Canadian Dental Association receive the financial support it requires to function to our best advantage.

QUEBEC:

Annual Fall Clinic of the Montreal Dental Club

The Montreal Dental Club held its 16th Annual Fall Clinic at the Mount Royal Hotel, September 25-27. About 200 dentists registered. Those attending were mostly from the Province of Quebec, the eastern provinces and a few from Ontario. The President, Capt. L. E. Kent, in his address, pointed out that this year marked the 100th anniversary of the establishment of dentistry as a profession as a result of the foundation in 1840 of The Baltimore College of Dental Surgery. He spoke briefly of the men who helped build up our profession since the founding of The Baltimore College to the present time. He concluded by giving a hearty welcome to those who were present.

An address was given by Mr. Elmer Wheeler, of New York, on the subject, "Words that Win Over Patients." Dr. H. S. Dunning, Professor of Oral Surgery, Columbia University, spoke on "Surgery by the Dental Practitioner." Dr. W. J. Linghorne, of New Liskeard, Ontario, addressed the Convention on the subject, "The Creation of Controlled Wear and Its Relation to the Elimination of Traumatogenic Occlusion." "Periodontia for the General Practitioner" was the topic discussed by Dr. Sidney Sorrin, Assistant Professor of Periodontia, New York University.

Dr. Sorrin also gave an address on the subject, "Eliminating Pain and Discomfort by Correcting Occlusal Disharmony of Natural Teeth." Dr. R. E. Blackwell, Professor of Operative Dentistry, Northwestern University, Chicago, discussed. "The Function of the Operative Dentist in Conserving Teeth and Health." Dr. J. S. Dohan, Professor of Prosthetic Dentistry, McGill University, gave a paper on "Full Upper and Lower Impressions." "Stresses Induced by a Partial Denture upon its Supporting Tissues and Practical Means of Effecting Their Control" was the subject of a paper given by Dr. O. C. Applegate, Assistant Professor of Partial Denture Prosthesis, School of Dentistry, University of Michigan, Ann Arbor, Michigan. Dr. I. C. Schoonover, of the National Bureau of Standards, Washington, D.C., spoke on "Dental Silicate Cements."

Table clinics were given as follows: "Jaw Surgery," by Dr. A. L. Walsh, Dean of the Faculty of Dentistry and Professor of Dental Surgery, McGill University; "Plastic Surgery," by Dr. H. A. Baxter; "Children's Dentistry," by C. R. Seller; "Office Economics," by Dr. A. C. Voisard; "Electro-plating for Inlay Dies," by Dr. W. J. W. Hodgins; "Immediate Dentures," by Dr. R. E. Dagg; "A New Type of Three-quarter Crown," by Dr. W. G. Stockwell, Department of Crown and Bridge, McGill University; and "Jaw Pathology of Dental Origin," by Dr. A. G. Racey.

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Societé Dentaire de Montreal

On September 25, on the occasion of the first meeting of the year, the following officers were elected for the ensuing year: President, Dr. Gérard de Montigny; Vice-President, Dr. Aimé Maher; Secretary, Dr. Guy Langelier; Ass.-Secretary, Dr. Paul-E. Joly; Archivist, Dr. Paul E. Poitras; Adviser, Dr. Théophile Coté; Treasurer, Dr. Euclide Malo; Councillors, Drs. Gérard Plamondon, Amherst Hébert, Gaspard Brouillette, Thomas Guimond. The October meeting was held on the 16th and Dr. James Coupland of Ottawa was the guest speaker. The title of his lecture was "Minimizing pain in Oral Surgery."

The November meeting will be held on the 20th and Dr. J. A. A. Blondin, of Manchester, Mass., will give a clinic on "A new method of securing a perfect full lower impression."

Montreal Dental Nurses' and Assistants' Association

The September meeting of the Montreal Dental Nurses' and Assistants' Association was held in the Montreal Dental Club rooms.

The President, Miss Lois Winters, introduced the speaker of the evening, Dr. Stanton Smaill. After the lecture a party was held and a presentation was made in honour of Miss Grace Robinson and Miss Mae Harris who were married recently.

The Sixteenth Annual Fall Clinic of the Montreal Dental Club was held on September 25-27. Our members did not put on a table clinic this year but were invited to attend several of the Doctor's clinics.

A bridge was held October 16, and the proceeds are to be used for war work.

EVE MIRON.

BRITISH COLUMBIA:

Vancouver Dental Society

The opening meeting of the Vancouver Dental Society was held in the Vancouver Hotel, under the chairmanship of Dr. Leslie Marshall. The outlined program points to a very active session.

Dr. O. T. Dean, Seattle, Washington, was the guest speaker. Dr. Dean is known throughout the United States as one of the outstanding oral surgeons, especially under nitrous oxide and oxygen anaesthesia. Besides his paper on Oral Surgery he showed both actual and animated coloured slides as well as cine. The preparation of the mouth for immediate dentures was the major feature of the paper and projections. The Dean Technique for the removal of the interseptal bony tissue has exceptional merit and by the retaining of the buccal plate gives future comfort since the ridge is retained. A very interesting and important point is the removal of the cuspids before adjacent teeth so as to prevent the fracturing of the buccal plate, as we all know that this area is the most troublesome in immediate denture insertion.

Dr. Dean's animated cine of progressive infection clearly demonstrated the route and action that takes place. His entire presentation was of such interest that most of the members stayed to a very late hour.

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Study Clubs

The Vancouver Ferrier Gold Foil Study Club has started another year of clinical work—one full afternoon and evening a month. Actual insertion of gold during the afternoon and criticism and discussions at evening session. Dr. George Darts is its chairman, and Dr. William Miller is the secretary. Other study clubs are being organized.

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Summer Vacation

Most of the profession took advantage of the beautiful summer weather to relax and play. Many motored over the new Big Bend Highway and Jasper-Banff Highway while others went in to the ever popular Cariboo District fishing, riding and later hunting.

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Enlistments

Bill Lea, Jr. son of Dr. W. J. Lea, our registrar, has enlisted with The Royal Canadian Naval Volunteer Corps, while Lt. Kenneth McRae, son of Dr. Archie McRae is in England with the Royal Navy.

SASKATCHEWAN:

Regina Dental Nurses Hold Supper Meeting

The Regina Dental Nurses and Assistants held their first supper meeting Monday, October 7th, with Miss Doris McDonald, the President, in the chair. Plans were discussed for an Armistice Tea, the proceeds to be given in aid of the Hostess Club.

Mrs. L. W. Gemmill kindly consented to lend her home for this function which will be held the evening of November 13th.

In charge of the social committee Miss Betty Rothwell will have as her assistants the Misses Mary Brett, Wilma Wagg and Dorothy Keyes.

Two new members were welcomed into the club, Miss Molly Clarke and Miss Wilma Wagg.

RUTH MORRISON.

Gum chewing is an unkind prank on the digestive apparatus. The teeth vainly attempt to crush an elusive substance, the muscles of mastication are assigned to an endurance test, the saliva flows to dissolve an insoluble material, and the stomach starts operating for a consignment that never arrives. In all the animal kingdom—not even the dog chasing his tail—is there to be found a more conclusive demonstration of lost motion.—Clarence O. Simpson.

EMPIRE NEWS

GREAT BRITAIN:

Guy's Hospital

Guy's Hospital has now been subjected to the effects of real modern warfare. The enemy has seen fit to indulge in indiscriminate bombing raids over the London area, and as a result we have received our share of casualties. On Saturday, September 7th, in the late afternoon, a series of fires were started following an intensive air raid; using these fires as beacons, the raiders returned throughout the night to attack their military objectives or anything else in the very approximate neighbourhood.

From the start of this offensive, a steady stream of casualties began to arrive at the Memorial Gates of Guy's Hospital. What we had organized and prepared for in the previous months had suddenly come to pass. Almost all of the patients were suffering from shock, a shock that was not only traumatic but also mental, for not a few of them had seen their relatives and friends fall victims to this German wretchedness.

Both medical and surgical staffs worked in complete harmony under the constant supervision of our Deputy Superintendent. The immediate problem in the majority of cases was the adequate administration of resuscitation. This is not the time for a description of cases and a weighing of results, but one cannot help remarking on the almost dramatic recovery of seemingly lifeless casualties after a vigorous regime of resuscitation had been instituted. Many of these patients who had suffered a multiplicity of perforating wounds of chest and abdomen together with head injuries and burns were removed to the operating theatre within a few hours of admission; there, our surgeons operated upon them, applying their tireless skill without effort and with admirable patience until their job was finished.

To avoid congestion of the wards by the accumulation of patients, a system of evacuation to base hospitals was started at once. Just as soon as emergency treatment had been applied and the patient had sufficiently recovered, he was comfortably accommodated in a stretcher bus, appropriate care being taken of the respective injuries of each patient so that he or she did not suffer by transport. In spite of many of these operations taking place at night constant exposure to bombs and shrapnel, there is not a single report of any patient having suffered adversely from the journey. —*Guy's Hospital Gazette, Sept.* 21, 1940.

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America's Gift to Maxillo-Facial Centre

At one of the maxillo-facial centres of the Emergency Medical Service Mr. Cruger, of the Chase National Bank, recently handed over to Sir Harold Gillies and Dr. S. C. Shanks one of a number of x-ray units presented by the Allied Relief Fund of America at a cost of £10,000. The apparatus in question, specially designed for maxillo-facial work, is already in use. Other units have been given to gastro-intestinal, chest, and neurological hospitals. Many representatives of the American Press came to report and photograph the ceremony and inspect the centre, and a cinematograph operator recorded the occasion.—*Br. Dental Jour.*

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A Free French Journal

It is welcome news that a review by French writers and scientists is shortly to be published in London.

It is hoped to maintain and present French science, literature and art in a free environment. Many famous British men of learning have already approved the project and the heads of universities, societies and learned institutions in Great Britain and the United States are to be approached asking for the full support for the effort to restore French independence and culture.—*Dental Record.*

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Books Are to be Free from Taxation

It is encouraging to note that in these strenuous and distracting times some attention can be given to the cultural side of life, as evidenced by the terms of the new "Purchase Tax Act" which excludes books from its operations.—*Dental Record.*

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Supplies of Dental Rubber

The Ministry of Supply considers it necessary to prohibit the future use of mercury in connection with dental rubber. Adequate supplies of dental rubbers which do not contain mercury will, however, be available to meet the requirements of the profession. It

will be appreciated that, rubber being an imported material, it is essential that strict economy should be observed in its use.—*Br. D. Jour., August 1, 1940.*

AUSTRALIA:

Dental Service in Private Surgeries

It should be placed on record that, in addition to the Auxiliary Army Dental Service scheme, many dentists in the metropolitan, suburban and country areas are performing free dental treatment for men before entering camps as recruits for the A.I.F.—*D. Jour. of Aust.*

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Evacuation of Children from Great Britain

DENTAL TREATMENT

The Australian Dental Association, New South Wales Branch, has been requested by the Government of New South Wales, per medium of the Overseas Children's Citizens' Committee, to make arrangements, if necessary, for any British evacuee children requiring urgent dental treatment upon arrival in Sydney.

It is not anticipated that the demand for treatment will be heavy, as it is known that some, at least, of the ships arriving will carry a dentist. Further, it should be emphasized that the proposed treatment will be limited to the immediate relief or prevention of pain.

It is suggested that some members—of necessity, metropolitan members only—might be kind enough to offer to treat these cases in their own surgeries, transport being provided by the Committee.—*The D. Jour. of Aust.*

EAST AFRICA:

A Gift from the Belgian Congo

The officer commanding the East African Forces has received from the Governor General of the Belgian Congo an offer of a complete field ambulance with the necessary personnel, medical materials, x-ray apparatus, motor transport, and a minimum of six European and forty native beds. A dentist is included in the personnel. This splendid offer is a pleasing demonstration of the solidarity of the Allies in Africa and incidentally of the increasing recognition of the need for making skilled dental attention readily available as near to the front line as is possible.—*Br. D. Jour.*

GENERAL NEWS

Two Dollars a Year Increase in A.D.A. Dues

The price of a good detective story, the cost of a pair of theatre tickets, the sum expended for a reasonably decent box of cigars, part of the fee for the insertion of a single amalgam filling—this is what the two-dollar annual increase in dues represents to members of the American Dental Association. The delegation from the state of Illinois supported this increase on the inescapable premise that it was needed to carry on the work of organized dentistry. Dental participation in national preparedness, the establishment of a research fellowship in biologic dental investigation, the publication of a national directory of dentists, the expansion of publication facilities, the maintenance of informed relations with government—all of these are made possible by funds provided through the increase in dues.

We are of the opinion that a strong majority of members of the Chicago Dental Society saw the necessity for such action a long time ago and, now that it has been taken, will grant it their utmost co-operation and support.—*Bul. of the Chi. D. Soc.*

EDITOR'S NOTE: — *This $2.00 increase in membership fees raises the dues to the American Dental Association to $6.00 per annum, and means $100,000.00 extra to the treasury of the Association. Surely this action must convey some stimulus to the dentists of Canada in coming to a conclusion about raising their own dues.*

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L. D. Caulk Co. Ltd.

Canadian dentists appreciate the fact that Caulk of Canada have raised no prices since the war began a year ago and have absorbed the exchange depreciation and also the 10 per cent Import War Tax.

Collections have been used to purchase Canadian War Bonds, this being made possible because Dr. G. Layton Grier, President of this Company, desires to do all in his power to help Canadians in their fight for liberty and justice.

House of Delegates Outlines Activity for Coming Year in American Dental Association

After voting a two dollar annual increase in dues, the House of Delegates of the American Dental Association in session at Cleveland, outlined a program of activity made possible by the increased income. An extensive survey of all dentists in the country will be undertaken by the Committee on Dental Preparedness; a new fellowship for biological research will be established on an annual basis at the National Institute of Health in Washington and steps will be taken toward the publication of a dental directory.

Budget

The budget of the American Dental Association estimated the annual income at $359,500.00 compared to proposed expenses of $403,722.00. The increase in dues is not included in the estimated income but will be used to offset the potential deficit indicated by the difference between estimated income and expenses.

The statement of estimated income, as prepared by the Budget Committee of the Board of Trustees of the American Dental Association follows:

Estimated Income

Membership dues	$192,300.00
Advertising	70,000.00
Subscriptions	10,000.00
Exhibit space	37,000.00
Sale of Mailing Lists	1,000.00
Earnings—Journal Fund	9,000.00
Earnings—General Fund	10,000.00
Bureau Public Relations	25,000.00
Library Bureau	500.00
Council on Dental Therapeutics	2,000.00
National Board of Dental Examiners	1,000.00
Dental Index	1,000.00
Museum Committee	500.00
Research Commission	200.00
Total Estimated Income	$359,500.00

Expenses

The Budget Committee indicated the following as probable expenses during the coming year.

Estimated Expenses

Secretary-Business Manager	$ 30,500.00
Journal	133,500.00
Annual Sessions	40,150.00
Bureau Public Relations	46,535.00
Bureau of Chemistry-Council on Dental Therapeutics	20,613.00
Library Bureau	7,786.00
Committee on Membership	2,500.00
Committee on Dental Economics	4,300.00
Treasurer	4,350.00
President	2,400.00
Board of Trustees	4,500.00
Budget & Finance Committee	200.00
Research Commission	23,000.00
Dental Index	5,230.00
Council on Dental Education	19,000.00
National Board of Dental Examiners	2,300.00
Committee on Legislation	5,450.00
Judicial Council	355.00
National Museum Committee	3,000.00
Public Health & Educational Committee	478.00
Scientific Exhibit Committee	900.00
Red Cross Committee	125.00
Women's Auxiliary Committee	50.00
National Health Program Committee	7,500.00
Executive Secretary	7,000.00
Committee on Dental Preparedness	5,000.00
Survey and Card Index	20,000.00
Arizona	2,000.00
Michigan	4,000.00
Journal Survey (Oral Surgery)	900.00
History Committee	100.00
Total Estimated Expense	$403,722.00

—Bul. of Chi. D. Soc.

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U.S. Naval Dental Corps

As a result of the National Emergency and the preparedness program, closer co-operation between civilian dentists and the U.S. Naval Dental Corps is taking place, with increased interest from each group in the work of the other, Lieut. A. H. Grunewald of the United States Navy Dental Corps said at the centennial convention of the American Dental Association in Cleveland.

Lieut. Grunewald outlined the Navy's equipment for dental care within the service and described, "the functions, ideals and accomplishments of the Naval Dental Corps.

"Every effort is made to obtain the best possible dentists for the Navy, which has much to offer in return for the proper application of desirable professional qualities,"

he said. "Competitive entrance examinations result in our securing, on the whole, dental officers of high ability and ideals."

Lieut. Grunewald paid special tribute to the professional achievements of civilian dentists, particularly in the field of organization for maintenance of standards and education. He said:

"In every case where these qualifications are sincerely applied the benefits derived from membership in the American Dental Association are definitely recognized. To the naval dental officer continually interested in professional advancement, the American Dental Association membership card is, in his travels, the key to invaluable professional contacts and learning. The benefits derived on every hand from the civil practitioner are deeply appreciated."

The personnel of the Naval Dental Corps was recently increased, Lieut. Grunewald revealed, the increase being occasioned by the National Emergency Proclamation. The present active list includes 327 dental officers, with 28 reserve officers now on active duty.

The Naval Dental Corps was organized in 1912, and restorative treatment introduced in 1922. At the time of its inception in the Navy, according to Lieut. Grunewald, restorative treatment was of the simplest type, and designed to replace such teeth as had been lost in the line of duty. The scope of this kind of treatment is much broader today, he added, and includes every type of restoration known to dentistry.

"The necessity of replacement for oral and general well-being is now the determining factor," he explained, "and the type of treatment instituted is left entirely to the discretion of the dental officer to whose care a patient is entrusted. Naval personnel, regardless of rank or rate, are accorded the same consideration in the endeavour to restore the proper masticating function."

Training of officers in the Dental Corps and the distribution of personnel throughout the Navy, Lieut. Grunewald said, takes place as follows:

"Upon successfully completing the entrance examination, dental officers are usually sent to the Naval Dental School, Washington, D.C., for a four months period of indoctrination and post-graduate instruction. From there they are assigned to one of the Navy shore stations for a year or more, after which they are ordered to a ship or one of our foreign shore establishments.

"At present there are 100 dental officers in 80 ships, plus 28 on the Asiatic station and other foreign shore duties. . . The number of ships in commission is slightly under 500, hence it is evident that many ships do not have a dental officer, while one has as many as three. The hospital ship, *Relief,* has three dental officers, whereas the large plane carriers and tenders, as well as the *Utah* and *Medusa,* have two each. Other ships which have dental service carry but one dental officer."

Dental officers, he added, are usually assigned to stations that afford the greatest opportunity for the application of any special ability they may possess, and professional services at most of the shore stations embrace almost every phase of dentistry.

Discussing the career aspects of life in the Naval Dental Corps, Lieut. Grunewald said: "Dental officers of the Navy, both at sea and ashore, enjoy the same privileges as other Staff or Line officers of equal rank. The tenure of office in the Dental Corps is for life, unless sooner terminated by removal, resignation, disability or failure to be selected for promotion.

"The annual pay and allowances, upon appointment, amount to $2,699 for an officer without dependents and $3,158 for an officer having dependents. The maximum salary attainable, including allowances, is $7,200 annually.

"Dental officers may retire after 30 years of service, at the discretion of the President, or at the age of 64 with three-fourths of the pay of the rank held by them at the time of retirement."

■

Right to Practice Medicine, Dentistry in France Curbed

The right to practice medicine, dentistry, or pharmacy in France and her colonies is denied to persons not born of French fathers by a law published in the official journal today. Exceptions are made for those "scientifically honoured" by France, who served with fighting units either in 1914-1918 or 1939-1940, or natives of Alsace-Lorraine who acquired

French nationality as a result of the world war.—*Chicago Tribune: 8-20-40, per A.D.A. Release.*

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Life Expectancy

Human resources have been vastly increased in the United States since 1900 by the advancement of preventive and curative medicine. The baby born in 1900 could look forward, as the personification of all babies born in that year, to a life of about 49 years. This representative baby born today can look forward to a life expectancy of about 63 years. If the baby is a girl, the outlook today is 66 years; if a boy, 62 years.

On the whole, each baby born in 1940 can look forward to about 13 more years of life than could the baby born in 1900. Apply this gain of 13 years in added life expectancy to the entire population of the United States, some 130,000,000 persons, and the amount of human resources contributed to the nation by public health and medical progress reaches astronomical figures.

Not only does the average man and woman of today live considerably longer than did the corresponding individuals in 1900, but they suffer much less from those diseases which are prone to attack the young, persons under forty. In short, the average person now has a good many more years in which to live than ever before. — *Illinois Health Messenger,—A.D.A. Release.*

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Chicago's School Dental Project

One hundred and twenty-seven dentists started work on September 15, in the huge dental project that embraces the children of the city schools of Chicago. Thirty-two of the dentists work in the school clinics while the balance make the dental examinations.

This enterprise, which is sponsored by the Board of Education and the City of Chicago, will be known officially as Chicago's School Dental Project. It is made possible through funds from the Board of Education and the Works Projects Administration. The dentists will be under the supervision of the dental bureau of the Chicago Health Department.

Dr. Greenwald, in commenting on the project, stated that "it is hoped that at the termination of the first year of this program, a statistical compilation of existing dental ills in some 700,000 school children in Chicago will be completed. This will be the largest survey of its kind ever compiled and should offer valuable information to the profession. It will aid materially in educating the children and general public towards the necessity of periodic dental care."

On September 15, approximately 32 clinics were ready for operation. Work was started immediately on a city-wide dental examination of the school children. This is to be followed by an educational program for the school children and parents.

Corrective treatment will be given only to indigent and underprivileged children. All other children in need of dental care are to be referred to their family dentists. For purposes of classification, the following will be termed indigent or underprivileged: those children whose families are on relief; those who are registered with the Council of Social Agencies; those whose family income is below six dollars per week per capita.

Four hundred and fifty dentists submitted applications for positions with the project. Three hundred and fifty of these submitted to written examinations which covered a test of dental knowledge and a personality inventory. Each of the applicants was then interviewed personally by representatives of the Personnel and Advisory Committees. From this group, those whose qualifications were of the highest-grade were selected for work on the project.—*Bulletin of the Chicago Dental Society, per A.D.A. Release.*

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Rhode Island Enacts Basic Science Law

The state of Rhode Island, U.S.A., recently enacted a law setting up basic requirements for admission to examination before the various professional examining boards in the healing art. No person shall be eligible for examination in the healing art or any branch thereof unless he first passes an examination testing his ability in anatomy, physiology, pathology, chemistry and bacteriology.

No person will be permitted to receive a certificate of ability unless he is a citizen of the United States or has obtained his first papers and presents proof of full citizenship within five years after taking the examination. —*A.D.A. Release.*

Dr. Harlan F. Horner Joins A.D.A. Staff

In its desire to further the development of dental education, the Council on Dental Education of the American Dental Association has engaged as executive secretary, Dr. Harlan F. Horner, formerly Associate Commissioner of Education of the State of New York, in charge of higher and professional education. His efforts will be especially directed to the problems involved in meeting oral health needs; interpreting the relations of dental education to the dental profession and to the public; to facilitating co-ordination of the efforts of dental schools, dental state boards and dental societies toward maintenance of adequate standards of professional proficiency; promoting a better understanding, in universities and in medical schools and by the public, of the current needs of progressive dental education and dental research in the public interest; to forward the continued development of dental education, fostering constant improvement in the methods of teaching in dental schools, and encouraging the establishment of conditions that will attract an increasing number of men of outstanding ability to a career of dental teaching.—*N. Y. Jour. of D.*

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Burke-Wadsworth Conscription Bill is Passed by United States Congress

For the first time in the history of the United States, peacetime military conscription became an actuality with the signing of the Burke-Wadsworth Selective Training and Service Bill by President Roosevelt on September 16.

Not more than 900,000 conscripts will be trained at any one time during peace. About 16,500,000 will be subject to registration but only about 5,000,000 will be subject to training. Several commentators have estimated the average registrant's chances of seeing service as one in 30.

No exemption will be made for occuptional groups, such as dentists and physicians. In each case the local draft board will determine whether a man's job is "necessary to the maintenance of the national health, safety or interest." — *Excerpts from the Bul. of the Chi. D. Soc.*

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Dentists Prescribe for New York Laboratories

The State of New York, according to the Dental Laboratory News, passed a bill in June requiring all dentists to issue prescriptions to dental laboratories for the construction of artificial dentures, bridges, crowns, inlays and porcelain jacket crowns.

To enforce the law, state investigators will be able to enter any laboratory and demand to see a prescription for every piece of work in the establishment. New York laboratories waged an unsuccessful fight to prevent this bill from becoming a law.

Another dental bill passed at the same time provided for the creation of five more state inspectors for a more thorough checkup throughout the state against unlicensed persons practicing dentistry.—*Bul. of Chi. D. Soc.*

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Change in Committees

An important action which was taken at the Cleveland meeting of the A.D.A. was the combination of the Committee on Dental Health Education and the Committee on Public Health to form a new committee on Public Health and Education.—*A.D.A. Release.*

IN MEMORIAM

Fleming Fraser, of Toronto, Ontario, aged 37 years, died as a result of a motor accident on Saturday, October 12.

Dr. Fraser was graduated from the Dental Faculty, University of Toronto, 1929. He was a native of Jamaica and matriculated in Toronto, 1922. He was the present Secretary of Downtown Toronto Dental Association.

Gordon C. Dewar, of Black Cape, Quebec, died March 29 following an illness of eleven years. He was graduated from Mount Allison Academy, Sackville, N.B., and later attended McGill University for three years. Following this he was graduated from the R.C.D.S. of Ontario in 1916. He practised in Kingston, Ontario, for the following ten years.

Dr. Dewar is survived by his widow, his mother and one brother.

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Ce que doit faire le Chirurgien-Dentiste dans le cas d'une crise cardiaque?

par CLEMENT J. KINCAID, D.D.S. (Chicago) (1)

Aussi dans l'Opinion Dentaire Belge mars 1940.

Nous devons aux recherches de notre dévoué confrère D'Hainaut, de Bruxelles, les très intéressants extraits ci-après reproduit par "L'Information Dentaire" de Paris, dans ses numéros 28 et 32 de 1939.

Angine de poitrine

Symptômes.—1° Douleur intense, soudaine, localisée à la partie supérieure du sternum, s'étendant jusqu'à l'aisselle gauche et tout le long du bras. La douleur apparaît après un effort, sous le coup d'une émotion ou après un repas très copieux.

2° La face se couvre de sueur.

3° Le teint devient terreux.

4° Le patient est immobile et reste ainsi, figé, jusqu'à la fin de la crise.

Traitement.—1° Les vasodilatateurs sont indiqués.

2° Nitrite d'amyle en inhalation: 3 gouttes administrées sur une compresse.

3° Faire suivre d'une tablete de nitroglycérine de 1/150e de grain (2), qu'on place sous la langue où elle est rapidement absorbée.

4° Un verre à liqueur de whisky donnera souvent de bons résultats, après un choc.

5° Si le traitement ci-dessus n'a pu enrayer l'attaque, faire une injection sous-cutanée de sulfate de morphine (1/4 de grain) et sulfate d'atropine (1/75 de grain), qu'on répètera dix minutes après si cela est nécessaire.

(1) *Dental Digest,* décembre 1938.

(2) Le grain vaut 0 gr. 0648.

THROMBOSE CORONAIRE

Symptômes.—1° Douleur, dont l'intensité et la localisation sont à peu près les mêmes que dans l'angine de poitrine, bien qu'elle puisse quelquefois simuler des désordres intestinaux, mais apparaissant en l'absence de tout effort ou de toute émotion.

2° Le patient peut être agité.

3° Le patient peut être plus cyanosé que dans l'angine de poitrine.

Traitement.—1° Une dose de nitroglycérine ou de nitrite d'amyle.

2° Si la douleur n'est pas diminuée, arrêter la médication et remplacer par une injection sous-cutanée de 1/2 grain de sulfate de morphine.

3° Les vasodilatateurs sont contre-indiqués tant qu'on peut observer une pression sanguine en baisse rapide; d'ailleurs la douleur de la thrombose coronaire ne cède pas à l'action des vasodilatateurs.

4° Le choc sera combattu en tenant le patient bien au chaud à l'aide de bouillottes et de couvertures, mais l'adrénaline sera contre-indiquée.

5° On ne doit pas remuer le patient jusqu'à disparition complète de la douleur et alors on ne le fera qu'avec beaucoup de précautions.

6° Un traitement rapidement et convenablement institué est essentiel, s'il est possible on appellera un médecin pendant que les soins d'urgence seront donnés.

La Société Dentaire de Montréal

La Société Dentaire de Montréal a commencé ses activités pour l'année académique 1940-1941, le 25 septembre 1940.

Lors de cette première réunion, le Comité Exécutif, qui doit présider aux activités de la Société pour l'année, qui commence, fut élu avec les résultats suivants: Président, Dr Gérard de Montigny; Vice-Président, Dr Aimé Maher; Secrétaire, Dr Guy Langelier; Ass.-Sec., Dr Paul-E. Joly; Bibliothécaire, Dr Paul-E. Poitras; Aviseur, Dr Théophile Coté; Trésorier, Dr Euclide Malo; Conseillers, les Drs Gérard Plamondon, Amherst Hébert, Thomas Guimond, Gaspard Brouillette.

A cette occasion, le Dr Paul Letondal présenta aux membres une communication intitulée, "Les Rapports de la Nutrition et de la Dentition chez l'enfant". A la réunion d'octobre, le Dr James Coupland, d'Ottawa, entretint les membres de "L'atténuation de la douleur en chirurgie buccale."

La séance de novembre aura lieu, le 20 novembre et le Docteur J. A. Blondin de Manchester, Mass. donnera une clinique sur "Une nouvelle méthode de prendre les empreintes pour les dentiers complets du bas".

Diététique rationnelle et carie dentaire

CONFERENCE DE Mme BRUHAT-MAUTALENT Vice-Présidente du Syndicat des Femmes Dentistes, à la SEMAINE ODONTOLOGIQUE, 10 JUIN 1938:

(Journal de la Femme-Dentiste de France—oct 1938)

Les aliments que nous absorbons sont, à la fois, les matériaux de construction et d'entretien de toutes les cellules différenciées de notre organisme. Leur importance est donc considérable et une alimentation mal équilibrée peut entraîner chez certains sujets des troubles sérieux.

Pour toutes les femmes, dont la destination première est d'être des maîtresses de maison chargées d'assurer dans les meilleures conditions le maintien de la santé familiale, ces notions sont très utiles à connaître et ne peuvent laisser indifférentes des Femmes Dentistes.

Les conditions actuelles d'alimentation s'éloignent de plus en plus de la nature, par

suite de la civilisation, du progrès, des machines et du désir de mieux vivre. Est-ce un bien pour nous ou le contraire? Question difficile à résoudre!

Quoiqu'il en soit, nous étudierons simplement les différentes sortes d'aliments, leur ordre d'utilité, leurs principes actifs par rapport à nos tissus, pour en tirer quelques déductions profitables.

Par ordre d'utilité nous connaissons:

L'oxygène, gaz indispensable à la respiration comme à la combustion et que nous trouvons dans l'air respirable;

L'eau, liquide indispensable aux échanges interstitiels, à l'équilibre fonctionnel, grâce à ses qualités de véhicule et de solvant.

Les aliments minéraux; les protéïques animaux et végétaux; les hydrates de carbone (amidons et sucres); les corps gras, aliments de force, de chaleur et d'épargne.

Les excitants et les toniques: thé, vin, café, alcool.

Les vitamines, dont le rôle primordial nous est apparu plus clairement il y a seulement une vingtaine d'années et dont l'action tout à fait spéciale est de jouer le rôle de ferments nécessaires à la vie à ses différentes phases.

Les aliments minéraux contribuent au maintien de la pression osmotique, à celui de la concentration moléculaire des humeurs et à la formation du substratum des cellules.

Le chlorure de sodium est l'agent principal de cette constante et nous le trouvons notamment dans le sang, la lymphe, les larmes et certaines sécrétions gastriques.

Les phosphates, bicarbonates, les acides aminés sont aussi importants dans la réaction du milieu intérieur. Et la plupart de tous ces éléments minéraux interviennent dans l'édification des tissus. Le calcium, agent primordial dans la contexture du tissu osseux, s'adjoint dans le tissu nerveux le phosphore, le fluor, le soufre et le fer.

Le phosphore pénètre dans notre organisme soit sous forme minérale, à l'état de phosphates, soit sous forme organique dans la chair des poissons. Le potassium y est introduit par les viandes (fibres musculaires), les légumes (épinards, oseille, artichauts, sous forme d'oxalates), les fruits frais et secs. Quant au magnésium, sous forme de chlorure, l'utilité semble indéniable, car, administré par voie buccale, en cachets, il amène la disparition des verrues et autres papillosités.

Le fer, lui, se trouve dans certaines eaux naturelles, dites minérales, et dans la plupart des légumes verts, surtout les haricots.

Un régime qui serait composé uniquement de pain, de beurre, de pommes de terre et de riz amènerait un appauvrissement de l'organisme en phosphore, fer et calcium. Il lui manquerait un élément de premier ordre: l'azote, qui nous est surtout procuré par la viande de boucherie, et que les végétariens repoussent comme génératrice de toxines intestinales.

Ce régime sus-indiqué amènerait, s'il était strict, une altération du squelette et surtout, chez l'enfant, en période de croissance, du rachitisme, des troubles d'ossification de la colonne vertébrale se traduisant soit en scoliose, cyphose ou lordose, et puis également des troubles nerveux et des convulsions de tous ordres.

Le calcium est celui des éléments minéraux qui fait souvent défaut dans l'alimentation des citadins et dont la carence est le plus nuisible chez la femme en état de grossesse ou de nourrice. On sait que la production du lait entraîne une déminéralisation très nette des tissus osseux; il faut donc que la quantité de calcium reçue grâce à une alimentation bien conçue soit largement suffisante et que l'apport compense la perte. Il faut également, en période de grossesse, surtout dans les quatre premiers mois, de concert avec le médecin traitant, ordonner à nos patientes un supplément dans l'apport du calcium sous forme de chlorhydrates. C'est à la même époque de gestation également qu'apparaîtront les multiples caries, dites de grossesse, les gingivites fongueuses, et, chez les sujets prédisposés, les pré-tuberculoses. Chaque fois qu'il y aura menace de pauvreté physiologique chez un individu, il y aura donc lieu, dans son alimentation, d'ajouter aux aliments ingérés, riches en phosphore, ceux riches en calcium et d'absorber: fromages, noisettes, amandes, jaunes d'œufs, lait, légumes secs,

céréales, cresson, fruits et poissons. Autant que possible, toujours conserver un équilibre entre l'absorption du phosphore et celle du calcium. Un excès du premier arrête l'utilisation du second. Il faut donc absolument varier l'alimentation, et nous rappellerons, au sujet du métabolisme du calcium, l'influence active de certains principes contenus dans quelques-uns des aliments, les vitamines antirachitiques, ainsi que celles de certains agents physiques, par exemple les rayons ultra-violets et leurs radiations.

Le manganèse, lui, est considéré dans l'organisme comme un catalyseur.

L'arsenic entre dans la composition des poils, de la glande thyroïde et du cerveau.

Le bore, le silicium, le brome, l'aluminium, le cuivre, le zinc existent à l'état constant et en quantités infinitésimales dans les organismes vivants, ainsi que l'iode, dont l'action est indéniable sur la glande thyroïde. Métaux et métalloïdes cités ci-dessus nous sont tous fournis par les végétaux et les cérérales qui les ont, eux-mêmes, grâce à leurs racines, puisés dans le sol et digérés. Faut-il en déduire que certains terrains très pauvres ne fourniraient pas toujours toutes ces sortes d'éléments nécessaires en quantité suffisante, si bien que les aliments de certaines régions, pauvres, elles aussi, détermineraient certains troubles dans le métabolisme basal de leurs autochtones? Et pourrait-on expliquer ainsi les "mauvaises dents" classiquement reconnues dans telle ou telle de nos provinces et les goîtres exophtalmiques et le crétinisme qui en découle?

Mais parlons des albuminoïdes et de l'albumine. On estime qu'un gramme par kilo du poids de l'individu est nécessaire pour réparer l'usure organique. L'organisme qui grandit a besoin d'azote, et l'azote en faible quantité est également nécessaire pour favoriser les produits des sécrétions.

Les albumines peuvent nous être fournies par certains légumes, comme les pois, haricots, lentilles qui seront à la base des régimes végétariens, aussi par les œufs et la viande maigre.

La viande de bœuf est la plus riche en albumine. S'il y a excès d'albumine dans l'alimentation, il y a augmentation de l'urée éliminée par les urines et production de dérivés toxiques. Si le cas s'aggrave et que les filtres rénaux soient déficients, on peut assister à tous les accidents dus à l'urémie: inappétence, céphalée, troubles mentaux, excitation et rêves pénibles, suivis malheureusement, dans certains cas, de coma et de mort.

Mais parlons des graisses. Qu'elles soient animales ou végétales, elles sont indispensables aux enfants, encore plus qu'aux adultes. Elles sont un élément calorique et favorisent l'effort physique. Les noisettes, les amandes, les noix et fruits secs, les huiles végétales, les graisses animales, la lécithine des œufs, le beurre nous fournissent une partie des calories dont nous avons besoin.

Viennent aussi les hydrates de carbone, qui constituent pour l'organisme une source d'énergie physique et mentale et même une réserve, un élément d'épargne lorsque le sucre est devenu du glycogène.

Ces hydrates de carbone doivent entrer pour plus de la moitié dans l'alimentation de l'adulte.

La semoule, le blé, les pâtes dites alimentaires, le chocolat, le miel, le riz seront pour tous des aliments sains et qui donneront le minimum de toxicité aux déchets de désassimilation.

Naturellement, les valeurs alimentaires sont modifiées selon les individus, mais beaucoup aussi selon la qualité de leur mastication.

Réservons toujours une large part aux aliments à base cellulosique qui, s'ils n'ont qu'une bien faible valeur énergétique, traverseront le tube digestif en assurant son fonctionnement complet, grâce à leur action mécanique sur les mouvements péristaltiques de l'intestin. Salades vertes, poireaux, fruits crus avec leur peau, fruits cuits peu sucrés sont, dans un tel but, fort à recommander, et les hydrates de carbone, producteurs d'énergie et d'assimilation facile, entreront donc largement dans nos menus, sauf pour ceux que guette l'obésité! Il n'est d'ailleurs nullement question ici des régimes

spéciaux, qui sont du ressort de la thérapeutique. La valeur bio-dynamique d'un aliment donné peut varier, on le sait, dans de notables proportions en considérant, pour les végétaux, par exemple, la constitution du terrain, le régime des pluies, des radiations solaires, les procédés régionaux de culture, les engrais employés, ainsi que le degré de maturité du végétal au moment de sa récolte, et du fruit au moment de sa cueillette.

Pour les aliments d'origine animale, il faut considérer l'âge des animaux, leur nourriture et leurs conditions d'existence.

L'action néfaste d'un régime tant soit peu déséquilibré qui, pour beaucoup, peut sembler normal, est susceptible de ne pas troubler l'organisme, en repos pendant un certain temps, sans causer de mal apparent, puis, brusquement, la modification organique latente et sournoise éclate alors, l'équilibre physico-chimique est rompu, modification et transformations des humeurs et du terrain, puis déficience et aptitude à contracter des diathèses graves selon la nature du déséquilibre survenu: diabète, tuberculose, rhumatisme, cancer, urémie, albuminerie, etc., etc. . . .

Nous poserons donc en principe que certains régimes peuvent soit nourrir l'individu, le faire grandir lentement ou vite, arrêter la croissance, la faire repartir, supprimer la fertilité, l'accroître, la prolonger, etc. . . . ; champ d'expérience vaste, très vaste et encore très peu connu. On peut aussi provoquer le développement exagéré de certains organes ou bien les atrophier; modifier un terrain héréditaire, faire disparaître des tares, prolonger la vie adulte et reculer les limites de la vieillesse. On apprendra, dans la suite des temps, à cultiver l'homme dès sa naissance, à le rendre fort et sain, et, agissant sur sa personne physique, on interviendra ensuite sur son caractère, tout cela par des régimes bien étudiés et équilibrés suivant l'effet à obtenir.

C'est pourquoi on peut aussi considérer les aliments au point de vue plastique et également au point de vue énergétique. Les premiers avec le carbone, l'azote, l'oxygène et l'hydrogène servent à la réparation et l'entretien des tissus. Les seconds servent à compenser les dépenses quotidiennes de l'organisme en énergie et en chaleur.

Le nouveau-né et le jeune enfant ont besoin de plus de calories que l'adulte, et le vieillard moins que l'adulte.

Sachant que, au point de vue calorique:

1 gramme d'albumine donne 4 calories 8;

1 gramme de sucre donne 4 calories 2;

1 gramme de graisse donne 2 calories 4,

nous pourrons calculer la ration alimentaire.

L'individu adulte a besoin de 35 calories par kilo de son poids initial. L'été, peu de déperdition de calories. L'hiver, de grandes déperditions de calories. Un travail calme et un travail de force n'utiliseront pas la même quantité de calories, évidemment. Nous devrons donc, suivant la saison, le climat, le pays et l'effort, varier les menus en conséquence. Et il faut constater que les saisons elles-mêmes fournissent avec un certain à-propos ce qui est le plus judicieux, au fur et à mesure!

Quant aux aliments d'épargne, ils sont réservés pour les cas exceptionnels, ceux où l'organisme doit produire plus qu'il ne recevra momentanément.

L'alimentation variera suivant les conditions extérieures de l'existence et nous assisterons à des adaptations de l'individu, qu'il s'agisse des régions boréales ou désertiques; qu'il y ait une période de guerres ou de disettes, ou des épidémies graves. Cependant, si les privations durent trop longtemps, l'organisme tout entier en souffre.

Disons aussi qu'un régime exclusivement carné engendre une élévation de la température du corps et donne une réaction acide aux liquides humoraux.

Un régime végétarien, mais surtout herbivore donne de l'hypothermie et une réaction alcaline.

Il s'ensuit que alcalinose ou acidose peuvent modifier le caractère des individus. L'état actuel des connaissances sur le cancer porte à penser qu'il évoluerait plus volontiers en milieu acide.

Mais que dire sur le vaste sujet qu'est celui des vitamines! Leur absence ou leur

pénurie dans l'alimentation est à la base des maladies dites: par "Carence alimentaire", comme le scorbut, la pellagre, le béri-béri, le rachitisme. Au facteur calorique ajoutons donc à nos régimes le facteur vitamines.

On a, jusqu'à ce jour, classé les vitamines en:

Vitamine A, facteur de croissance;

Vitamine B, et ses dérivés, action névrétique et anti-scorbutique;

Vitamine C, également à pouvoir anti-scorbutique et qu'on trouve dans les végétaux crus et frais, qui contiennent de l'acide ascorbique et possèdent aussi une action anti-hémorragique grâce à la pectine;

Vitamine D, à action anti-rachitique par les stérols;

Vitamine E, qui est la vitamine de la reproduction de la continuité des espèces et des races, elle se trouve dans le germe de blé, de chènevis et d'orge.

Il s'ensuit que l'aspect de l'enfant, comme celui de l'individu, et leur valeur physiologique à tous deux peuvent varier selon l'usage qu'ils font d'un régime riche ou pauvre en vitamines appropriées.

D'après le Docteur Verne, en 1931, M. Simonnet faisait remarquer l'importance des vitamines A et D sur l'évolution des dents.

Nous ne parlerons pas ici des origines de la carie dentaire, origine à la fois endogène, mécanique, chimique ou exogène. Constatons seulement les lésions. On a supposé que l'hypovitaminose A pourrait être un des facteurs de la paradentose. On a observé que l'hypovitaminose C produisait des lésions spéciales sur les capillaires de la pulpe et sur les odontoblastes, dont la Fibre de Tomes finit par se rompre, et cela pour une déficience de 50% dans la dose nécessaire de vitamine C.

Tout dernièrement aussi, la vitamine A a été étudiée à nouveau par notre distinguée Confrère Mrs Mellanby, au sujet de la formation des dents et la structure molle paradentaire. On a pu noter que l'absence ou l'insuffisance des vitamines A provoque une prolifération excessive des tissus mous, d'où vraisemblablement gingivite, puis pyorrhée. La dentine elle-même tend à être remplacée par un tissu ressemblant au cément.

On observe également dans l'avitaminose que la percée des dents chez le nourrisson peut se trouver retardée et provoque des irrégularités dans la position des dents sur l'arcade. La pro-vitamine A est le carotène contenu dans la pulpe des carottes fraîches. Celles-ci, rapées, sont introduites, dans certains cas, dans le lait du nourrisson, dans le biberon même.

Le Dr Joachim, de Bruxelles, a magistralement étudié la vitamine C, anti-scorbutique et anti-hémorragique et qui active les combustions et peut être prescrite dans l'hémophilie sous forme d'Arhémapectine.

La vitamine D a fait le succès de l'huile de foie de morue, qui en contient en quantité appréciable et dont l'emploi, aux différents âges de la croissance, reste toujours aussi utilement conseillé.

Quant à la vitamine E, nous l'avons dit, elle est nécessaire à la perennité de l'espèce. Indispensable à la sécrétion de l'hormone, dite gonatrope, qui favorise le fonctionnement des glandes génitales. Une absence totale des vitamines E serait donc incriminée quand il s'agit de stérilité. De même on attribue à l'excédent de vitamine E, et par suite d'hormone, l'excitation et les troubles de certains organismes masculins ou féminins.

On sait aussi que l'excédent de vitamine D produit des troubles dans le métabolisme du calcium, que celui des vitamines B et C provoque un déséquilibre dans les échanges humoraux. Trop de B est hypoglicémiante, comme l'insuline; trop de C provoque de l'amaigrissement et des lésions osseuses.

L'organisme humain fabrique lui-même certaines hormones et prend des vitamines à l'extérieur, dans l'alimentation. Les rapports entre l'endocrinologie et les vitamines sont l'objet d'études scientifiques ardues; quant à nous, restons dans le domaine féminin de la diététique, c'est-à-dire du régime familial journalier. Peut-être devra-t-il être profondément modifié dans quelques années, à la suite des recherches biologiques

de nos savants; en attendant, tenons-nous le plus près possible de la nature et de la vie simple et saine. Cherchons à nous conserver vigoureux et forts grâce à un régime logique, car ce sera au bénéfice de notre race, qui luttera mieux ainsi contre son extinction, malgré les guerres et les catastrophes.

Et je vous dirai, comme conclusion, mes chers Confrères: cherchons donc à faire pénétrer auprès du public ces connaissances sur la diététique rationnelle, et cela nous est facile, dans notre Cabinet Dentaire, nos judicieux conseils seront écoutés par les mères de famille. Elles comprendront aisément que, pour une même dépense, un régime peut être beaucoup plus complet s'il est mieux conçu et équilibré et que, s'il a ces dernières qualités, il peut arriver à modifier le terrain physiologique des membres de la famille, leur façon de se comporter physiquement et moralement et, en conséquence, augmenter leur valeur sociale.

Par une adaptation judicieuse, les aliments devraient être nos seuls médicaments. En eux seuls nous devrions trouver ce qui est nécessaire à notre équilibre organique, nerveux, cérébral et mental.

Je n'en veux pour preuve que l'état d'euphorie qui succède toujours à l'ingestion d'aliments logiquement choisis et combinés et dont la fraîcheur doit être la qualité dominante.

Vous trouverez ci-après quelques types de menus rationnels puisés "au Cours de Cuisine diététique et familiale" élaborés sous le contrôle scientifique du Dr Léon Meunier.

Nous dirons, avec ce docteur: "La cuisine raffinée est un art et la cuisine diététique est une science". Tout repas mixte, viande et légumes, doit être homogène. "Un menu homogène a pour but de ne pas donner, dans un même repas, les albumines animales (viande et poisson) et les gros féculents (riz, pâtes, légumineuses), car les premiers exigent une digestion stomacale acide arrêtant la digestion des seconds, qui doit se faire en milieu gastrique neutre."

Voici quelques types de repas homogènes pour une journée:

MENU NO 1

8 heures.—Café au lait et pain beurré (matières grasses).
Pomme lavée, non pelée (albumine végétale).
12 heures.—P. de terre en robe des champs (subst. minérales).
Cœur de laitue (cellulose).
Pomme rapée sucrée, jus de citron (vitamines).
Filet de bœuf grillé (albumine).
Camembert.
19 heures.—Potage crème d'orge (féculents).
Artichaut à l'huile (substances minérales).
Pudding de semoules (hydrates de carbone).

MENU NO 2

8 heures.—Yohourt (albumine).
Fruits cuits (pruneaux, figues, etc. . . .) (albumine).
12 heures.—Demi-pamplemousse (vitamines).
Potée légumes à la vapeur, carottes, etc. . . . , au beurre (matières minérales).
Poullet grillé (albuminoïdes).
Fromage de Coulommiers.
19 heures.—Potage arrow-root et légumes (matières minérales).
Polenta à la tomate (féculents).
Compote de pêches ou autres fruits (cellulose).

Tout régime végétarien doit être lui aussi rationnel, c'est-à-dire comprendre, dans des proportions étudiées, les cinq éléments nécessaires à un repas (féculents, albumine végétale, matières grasses, substances minérales et vitamines). Donc, dans le menu no 1,

un mélange de purée de lentilles 1/3 et de pommes de terre 2/3 remplacera le filet de bœuf grillé. Dans le menu no 2, des pommes de terre en robe des champs, fourrées de béchamel au fromage de gruyère remplaceront le poulet grillé.

De même, on peut remplacer une escalope fourrée par du riz créole aux champignons; une sole à l'étouffée par une potée de légumes verts avec un cinquième de haricots soissons; un cornet de jambon farci par des tomates farcies avec une purée de fèves décortiquées, etc., etc. . .

Et, pour terminer cette causerie, voici un conseil diététique pour faire bouillir le lait à 100 degrés dans les périodes d'épidémie ou de fièvre aphteuse:

Mettre un litre de lait dans une casserole de deux litres. Porter sur le feu et surveiller; quand le lait monte, le retirer du feu. Puis, crever la pellicule et laisser retomber le lait. Puis, le remettre au feu. Provoquer alors l'ébullition pendant encore cinq minutes. A cette condition seule, le lait est porté à 100 degrés, car "un lait qui monte n'est plus un lait qui bout".

Mme BRUHAT-MAUTALENT, *Chirurgien-Dentiste de Paris.*

De la succession des dentures à travers les âges géologiques

par GASTON GUERARD
(La semaine dentaire 1931)

Je signalais il y a quelques mois et à cette même place, les fautes commises grâce au préjugé classique qui voudrait que notre dentition fut le reliquat de dentures ancestrales. Pour certains même, nos dents seraient des dents de Reptiles et de Poissons transformées à travers les âges géologiques et les séries animales. Comme une telle conception renferme de graves conséquences à l'égard de nos connaissances générales sur le système dentaire, j'ai tenté, à l'occasion du VIII[e] Congrès, de dénoncer l'erreur des classiques, et puisque déjà, par son hospitalité, *La Semaine Dentaire* m'avait secondé dans cette tâche, j'ai cru qu'il n'était pas sans intérêt de rappeler ici les moyens qui m'ont servi cette fois devant la Section d'Anatomie.

Après avoir expliqué la conception des auteurs et principalement la théorie d'Osborn, et comme toutes les opinions relatives à la phylogénèse convergent autour de l'idée d'*unité de composition,* j'ai d'abord étudié cette unité sous deux aspects différents: l'*unité de Développement* et l'*unité de Composition*, en joignant à cette première recherche l'examen des *Liaisons anatomiques.*

Les opinions contradictoires ainsi mises en présence, il ne me restait plus qu'à montrer la valeur des circonstances *Anatomiques* et *Paléontologiques* à l'égard de chacune d'elles, pour terminer enfin par une conclusion à la fois *biologique* et *philosophique.* Ceci fut la tâche de mon Rapport, il a été publié, je n'y reviendrai donc pas.

Je désire seulement rappeler ici l'importance de certains faits, celle d'abord trop méconnue des études anatomiques et biologiques qui sont cependant à *la base de toute l'odontologie.* il n'est pas en effet de thérapeutique ou de prothèse possible sans la connaissance de l'architecture intime des dents. Trop souvent malgré cela, ne voyons-nous pas celles-ci considérées comme un appareil mécanique et non pour ce qu'elles sont en réalité, c'est-à-dire un *organe vivant?* En outre, les origines de notre denture ne sont pas moins intéressantes en vue des recherches biologiques, et la question posée au Congrès l'a bien prouvé par l'intérêt qu'elle devait susciter (1), trois rapporteurs et huit argumentateurs étaient inscrits pour cette étude. Je ne dirai pas ce que fut le débat, mais il est intéressant d'en rappeler les conclusions.

(1) "Le Polymorphisme des Dents est-il le résultat de leur évolution phylétique?"

Les principaux arguments étaient présentés par le docteur Sicher (Autriche), le docteur Weidenreich, professeur d'Anatomie et d'Anthropologie à l'Université de Francfort, le docteur Lartschneider (Autriche) et le professeur Lebrun, de l'Ecole Odontotechnique de Paris. Il s'agissait donc de connaître l'histoire de la Denture des Mammifères pour savoir les origines du système dentaire humain. Déjà dans mon Rapport j'avais plaidé les *évolutions séparées*, complétant alors le programme que je viens de tracer plus haut, je m'efforçai cette fois de démontrer le bien-fondé de mon hypothèse en répondant aux objections qui pouvaient être formulées au nom des cinq facteurs suivants:

L'Hétérogénèse,
Les Homologies,
La Génétique,
Le Cycle de la Matière,
L'Hérédité (1).

Il serait trop long d'exposer ce que fut la défense et la critique de la thèse que je soutiens depuis longtemps en opposition avec les auteurs classiques, mais voici quels sont les deux faits autour desquels je dus concentrer mes efforts et qui semblent être les deux pivots de l'argumentation transformiste:

1° Osborn a démontré que la denture des Vertébrés avait évolué au moyen d'un processus régulier à partir de la dent simple et conique des formes les plus archaïques jusqu'à la Dent des Mammifères les mieux organisés.

2° En accord avec le *lamarckisme,* cette transformation du système dentaire à travers les époques géologiques est due au fonctionnement de l'organe.

A cette augmentation chaudement soutenue par quelques-uns de mes contradicteurs, j'ai opposé et prouvé:

1° que la théorie d'Osborn était *fausse;*

2° que si le lamarckisme répond en cette occasion aux exigences de la morphologie et de la systématique, il est par contre totalement impuissant à expliquer la genèse des différentes dentures.

Tout d'abord la théorie d'Osborn, sur quoi s'appuient toutes les conceptions classiques, est purement imaginative et en complet désaccord avec les réalités (en dehors bien entendu du petit groupe des Mammifères mésozoïques), et il est aisé de le démontrer. Les séries invoquées en faveur de la transformation des organes dentaires au moyen de la théorie d'Osborn (2) et tirées de l'examen morphologique des Dents des Vertébrés, ont pu parfois être en effet confirmées par la paléontologie, mais *jamais* elles ne nous ont fourni de sériations continues montrant le passage indiscutable des formes principales les unes aux autres. Nous possédons des séries partielles, à l'intérieur desquelles des gradations peuvent être observées et interprétées généalogiquement, mais ces séries se montrent tout à fait *distinctes* et *discontinues* si nous voulons les réunir par des liaisons anatomiques. En un mot, il n'y a de transitions qu'à l'intérieur des *familles* et c'est tout.

Les séries, hors ce cadre restreint, sont donc, contrairement à la conception d'Osborn, purement artificielles et en voici un exemple parmi une grande quantité d'autres: Cuvier se basant sur la Denture a présenté l'arrangement suivant pour un même groupe: chats, hyènes, martres, chiens, civettes, ours. Or, CETTE SERIE EXCESSIVEMENT BIEN CONSTRUITE AU POINT DE VUE DENTAIRE, EST TOTALEMENT INEXACTE AU POINT DE VUE PALEONTOLOGIQUE ET GENEALOGIQUE. Suivre une sériation aussi artificielle serait donc confondre le *développement des dents avec le développement paléontologique,* ce à quoi sont arrivés les auteurs qui ont suivi Osborn.

L'appareil dentaire présente en effet une grande quantité de formes très variables, il est donc facile d'y trouver les éléments d'une sériation quelconque, mais à y regarder

(1) Nous publierons les cinq études correspondantes.

(2) Le type conique et simple se transforme graduellement par l'adjonction de talons et tubercules.

de près, elles n'ont aucune valeur généalogique. Et cela est si vrai que si nous prenions d'autres organes que les Dents, nous serions conduits à autant de séries différentes, *le développement d'un appareil, fut-ce l'appareil dentaire, c'est-à-dire l'un des plus caractéristiques pour la détermination des espèces, ne doit donc pas être confondu avec le développement phylogénétique.*

Des papilles cutanées, en un mot, se sont formées en même temps que les types d'organisation, elles ont fourni là des écailles et des dents placoïdes, ici des organes préhensibles, de broiement ou de combat, et chez les vertébrés les plus élevés elles ont donné, en se coordonnant, des organes masticateurs. L'origine embryologique est la même, l'unité biologique qui réunit toutes les dentures a nécessité des ressemblances, mais elles ne proviennent pas les unes des autres, j'en ai *par ailleurs* largement fait voir l'impossibilité. Toutes les formes diverses sont évidemment susceptibles de modifications à cause même du rôle qu'elles ont à remplir, mais il fallait cependant à chacune un degré de perfectionnement d'emblée suffisant, c'est-à-dire *un minimum de préadaptation* (1).

Dans l'impossibilité enfin de donner satisfaction à Osborn au moyen d'exemples concrets, on pourrait, semble-t-il, lui accorder au moins que les formes les plus compliquées pussent dériver des plus simples, mais pour ma part je n'accepte même pas cette concession, pour avoir trop souvent observé que les rapprochements peuvent s'expliquer par tout autre chose qu'une répétition ancestrale.

Je passe à présent à la critique la plus impressionnante, celle qui m'a été opposée en vertu des principes de Lamarck. Le docteur Weidenreich, qui a consacré une étude longue et savante à l'évolution des dentures et au lamarckisme, a bien voulu me communiquer les textes de quelques-uns de ces nombreux travaux, nos conclusions n'étant pas les mêmes, malgré plusieurs attaches communes, je me dois d'expliquer pourquoi le lamarckisme ne m'a pas pleinement convaincu dans le domaine qui nous intéresse.

Mon éminent contradicteur de Francfort a certainement pensé que la nature des types d'organisation ne devait pas s'exprimer seulement dans leur anatomie, mais aussi dans leur *histologie,* et il défend une évolution qui nous est montrée par l'anatomie microscopique. Loin de contredire cette prétention, je reconnais de mon côté qu'il y a bien une liaison *morphologique* et *histologique* entre les dentures des vertébrés et par conséquent j'admets aussi une *évolution générale.* Il y a, en effet, évidemment une évolution obligatoire puisqu'il s'agit d'un même organe et d'une même fonction, mais où nous ne parlons plus le même langage, c'est lorsque nous touchons aux *origines.* Ni les liaisons constatées, ni l'évolution reconnue ne peuvent prouver en effet qu'il y eut *descendance* entre les porteurs, pour cette raison qui domine toutes les autres que le *développement général des dentures ne concorde pas avec l'évolution généalogique.* C'est pourquoi enfin si j'accepte qu'il y eut "évolution", je prétends que cette acceptation n'appuie en rien l'idée mécaniste du transformiste et qu'elle ne saurait donc infirmer la thèse que je défends, à savoir que la denture des Vertébrés inférieurs est une chose, et celle des Mammifères en est une autre. Et ce qui se passe dans le domaine de l'appareil tégumentaire se retrouve d'ailleurs dans tout l'organisme, partout nous voyons la forme exiger un développement particulier grâce auquel nous ne pouvons nous représenter l'organisation d'un animal comme le stade déterminé d'une évolution générale.

Le professeur Retterer (2) dans son importante étude sur *"Les Dents, leur Origine et leur Structure",* après avoir rendu justice aux recherches de Cuvier et combattu l'hypothèse des formes préétablies, admet le principe de Lamarck et écrit: "La figure et la complexité des Dents dépendent de l'influence du facteur mécanique et du sens des mouvements qu'exécute la mâchoire inférieure".

(1) Voir la *Préadaptation de l'Organe Dentaire* (G. Guérard). *Revue Odontologique,* juillet-août 1931.

(2) Au cours des travaux du Congrès, j'ai eu maintes occasions de rappeler les conceptions de ce grand chercheur à qui l'Anatomie dentaire doit tant d'idées neuves.

Certes, j'ai dit souvent la valeur réelle de cette formule, mais explique-t-elle quelque chose sur la *genèse* des organes qui nous intéressent? A ce dernier point de vue, je trouve en effet dans le procédé de Lamarck plus d'hypothèses que d'observations rigoureuses et dans une étude récente présentée dans *La Revue Odontologique* (après avoir suivi l'Histoire de la Dent Primitive, et décrit les étapes fonctionnelles de l'armure buccale), comme je me demandais en terminant quelles conclusions la *Biologie* pouvait tirer des enseignements que nous avions acquis, je me suis efforcé de montrer l'importance de la MORPHOLOGIE BIOLOGIQUE dans les questions intéressant la structure de l'organe dentaire, et je terminais enfin par des conclusions dont les principales trouvent ici leur application et qui sont les suivantes:

1° Si nous envisageons la structure anatomique des différents modes de dentures, nous sommes frappés par la grande quantité des modalités utilisées pour la préhension, le broiement, l'attaque et la mastication alors que la quantité des *types d'organisation* est au contraire des plus restreintes. Pour expliquer cette observation, nous remarquerons que l'effort qui produit toutes ces variétés est un effort de conquête pour utiliser tous les moyens disponibles à l'entretien de la vie, les Marsupiaux deviendront rongeurs, carnivores, herbivores . . . , des Primates acquéreront des dentures de rongeurs . . . , etc. . . . , il y a là *un effort dans le sens de l'accroissement des espèces et non dans le sens de transformation ou de perfectionnement.* L'ACQUISITION DES FORMES DENTAIRES NOUVELLES CORRESPOND, EN UN MOT, A LA MULTIPLICATION DES ESPECES ET NON A DES CHANGEMENTS DE TYPES.

2° L'action du milieu agissant sur le système dentaire a donc pu aider à la création d'espèces nouvelles, elle n'a jamais aidé à la formation de types nouveaux. C'est pourquoi vouloir adapter le transformisme aux variations dans la structure des Dents ne serait que généraliser des observations limitées.

3° Cette dernière prétention, ajoutons-le enfin, a eu pour résultat d'obliger les auteurs à recourir, dans leurs tentatives de phylogénèse générale, à des gradations établies sur des schémas conceptuels souvent imaginaires.

L'importance attribuée par Lamarck et défendue par Retterer et Weidenreich de l'usage et du non usage des parties est réelle, je le répète, mais il ne faut pas oublier que cette loi est inconstante (j'ai cité des Dents inactives et même nuisibles et qui atteignent un développement considérable), ensuite quand je conçois un mode de mastication, en un mot une fonction, je dois accepter l'existence préalable d'un organe pour la remplir, la fonction produira un perfectionnement ou une adaptation de la denture, elle ne la fera pas naître là où elle n'existerait déjà sous une forme première et génératrice.

Ce n'est pas tout, si nous examinons la mâchoire de l'Homme, du Chien, du Cheval, etc. . . . , nous voyons qu'elle n'a pas changé biologiquement depuis des milliers de siècles, en un mot nous disons qu'elle est *fixée.* Or, comme les êtres issus de mêmes progéniteurs ne sont jamais absolument semblables entre eux, ils procurent ainsi, nous le savons, une *amorce* à la formation d'espèces nouvelles, pourquoi donc alors, et étant donné la variété des régimes et des circonstances, pourquoi n'obtenons-nous pas d'innombrables nouvelles formes de dentures si les preuves de Lamarck étaient vraies? Il prétend que l'habitude et l'activité d'un organe dussent être la source de modifications dans sa structure, soit, les Créodontes ancêtres des Carnivores ont en effet acquis la carnassière (cette transformation toutefois se fait à l'*intérieur* d'un groupe et nous ne passons pas d'une série à l'autre), mais qu'aurait répondu l'illustre naturaliste si on lui avait demandé par quelle habitude la denture des Reptiles avait pu se transformer chez les Thériodontes? Le régime des Carnivores? ce ne peut être cela, puisque les plus hautement spécialisés de ces derniers animaux appartiennent précisément à la classe des Reptiles, et ont gardé la denture reptilienne caractéristique, le régime carnivore ne leur ayant pas donné une denture spéciale comme cela se passe chez les Mammifères. En réalité, les exemples que nous pourrions obtenir en faveur de Lamarck ne touchent pas à "l'organisation", qu'un carnivore eût une denture plus forte, plus parfaite, cela ne change en rien sa place dans la nature; bref les professeurs Weidenreich et Retterer ont

raison d'accorder une place aussi importante à l'action mécanique dans la morphologie des Dents, mais je ne pense pas qu'ils admettent la possibilité d'une dent *née sous l'effort* de l'animal désireux d'accomplir une fonction .

Pour ma part, l'influence mécanique intéressera la denture sur des détails, entraînera des différences de forme, *voire même de fonction*, mais il ne s'agira que de caractères superficiels, spécifiques, en un mot ce ne seront pas des caractères anatomiques. Il n'y aura jamais par le simple jeu de l'habitude *création totale* d'un nouvel organe *ajouté* à l'espèce et transmissible aux descendants du porteur. Il y aura restauration ou appoint apporté à une denture et c'est tout, et une telle circonstance enfin est tout à fait insuffisante pour relier toutes les dentures entre elles, et dire avec Lamarck (après avoir passé par les Vers et les Mollusques) que ces derniers engendrent les Poissons, d'où sortent les Reptiles, lesquels donneront à leur tour les Oiseaux et les Monotrèmes d'une part, les Mammifères de l'autre. Cette spéculation anatomique qui a engagé les auteurs s'intéressant à la morphologie dentaire comparée, à suivre la transformation des dentures à travers la série zoologique offre donc pour une telle prétention une base insuffisante et trop peu sûre, et je crois plutôt à un filtre qui, à l'origine des classes et des ordres, a laissé passer les formes capables d'entrer dans l'*association biologique* contemporaine de leur apparition ; la forme de la Dent, dès qu'elle s'est montrée, a *marqué l'individu* et l'a guidé vers son régime et c'est alors que sont intervenues toutes les causes invoquées par les auteurs et qui se manifestent effectivement dans les familles, les genres et les espèces.

Entre les grandes catégories, les classiques ont voulu mettre des formes vivantes alors que je suis obligé avec Sergi de recourir à des "germes d'attente", je n'ignore pas sans doute ce que ce dernier mot a d'indéterminé, mais il a du moins cette qualité de marquer ici les coupures et les interruptions qui existent entre les systèmes dentaires si nous passons de l'un à l'autre des groupes supérieurs de la systématique. Le docteur Périer, de Genève, parle de découvertes à venir qui combleront ces vides, elles sont en tout cas problématiques et s'il est quelques exemples montrant des continuités, ceux qui nous ont été fournis n'appartiennent qu'à de petits groupes, familiers ou génériques.

Quoi qu'il en soit de l'avenir enfin, il est un fait contrôlable dès à présent et qui nous montre, à l'égard des Dents, l'impossibilité d'une évolution *régulière* et *mécaniste*. Nous ne voyons pas en effet se succéder à chaque époque des formes de dentures consécutives et régulièrement sériées, ainsi que le voudrait l'évolution mécaniste, c'est-à-dire des formes qui *"continueraient"* leur évolution, ce n'est pas cela du tout, et les formes de denture sont pourrions-nous dire au contraire, à chaque étape géologique, coordonnées entre elles et en accord avec les associations biologiques du moment, elles renferment en un mot tous les degrés de complications nécessaires à la formation de l'ensemble des êtres vivants. Et c'est ainsi que nous assistons à une série de mondes successifs montrant des types dentaires morphologiques différents, "TYPES DONT LA VALEUR EST SANS DOUTE CROISSANTE, je le reconnais, MAIS DONT CHACUN PROCURE A L'EPOQUE OU IL DOMINE, LES FORMES ESSENTIELLES QUE DEMANDE L'ORGANISME TOUT ENTIER.

Tel est, me semble-t-il, la véritable marche de l'évolution de la denture des Vertébrés, il n'y a pas enfin souci d'une évolution générale, mais il y a des formes adaptées aux fonctions qui devaient à chaque moment aider à remplir toutes les places demeurées libres dans la Nature.

LEST WE FORGET!

God of our fathers, known of old,
Lord of our far-flung battle-line,
Beneath Whose awful hand we hold
Dominion over palm and pine—
Lord God of hosts, be with us yet,
Lest we forget—lest we forget!

The tumult and the shouting dies;
The captains and the kings depart;
Still stands Thine ancient sacrifice,
An humble and a contrite heart.
Lord God of hosts, be with us yet,
Lest we forget—lest we forget!

Far-called, our navies melt away,
On dune and headland sinks the fire;
Lo, all our pomp of yesterday
Is one with Nineveh and Tyre!
Judge of the nations, spare us yet,
Lest we forget—lest we forget!

If, drunk with sight of power, we loose
Wild tongues that have not Thee in awe,
Such boastings as the Gentiles use,
Or lesser breeds without the law—
Lord God of hosts, be with us yet,
Lest we forget—lest we forget!

For heathen heart that puts her trust
In reeking tube and iron shard,
All valiant dust that builds on dust,
And guarding, calls not Thee to guard,
For frantic boast and foolish word—
Thy mercy on Thy people, Lord!

—Rudyard Kipling.

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The Maintenance of Enamel Integrity During Orthodontic Treatment

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THE orthodontist must, of necessity, have a special interest in the subject of oral hygiene using that term in the broadest sense, viz: the science that deals with the preservation of the health of the mouth. This special interest, in part, lies in the fact that frequently the orthodontist creates a new set of local conditions, and establishes for a time a changed environment for such tissues as the enamel, gingivae and periodontal membrane. Also, the orthodontist carries out his work at a period in the life of the patient when there is a greater tendency to the development of dental caries. It is hoped, therefore, that a broad discussion of the subject of caries, from the viewpoint of the essayist, will not only be of interest but of value as well. It is felt that in many ways the following concept helps to explain the numerous and varied phenomena to be observed in the clinical picture of dental caries. It will be necessary, therefore, at the outset to outline briefly some of the principles involved in this theory of the aetiology of this disease.

Every dentist, no doubt, has made the observation, following cleansing procedures on the clinical crown, that the enamel surface under the great majority of adhering plaques is free from the caries process. The removal of other plaques and debris, however, shows enamel that is plainly undergoing the decalcification of early caries. In consequence it is manifest, that there are two kinds of plaque material, one which is caries-producing, and one which is not.

Based on these common observations, the writer has stated in an earlier paper (1) that, "it seems logical, therefore, to deduce that plaques having the capacity of initiating caries differ from non-caries plaques in some fundamental manner. They must contain material inherently able to form sugar. They must of necessity remain in contact with the enamel surface for a sufficient time to allow the bacteria to form acid, and to permit, by protection from the saliva, its formation with sufficient intensity to thoroughly decalcify the underlying enamel."

This seemed a reasonable basis upon which to build a working hypothesis, although, at the same time, it was realized that some forms of debris on the tooth surface might absorb sugar from the

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saliva, and constitute, under favorable conditions, a medium for the colonization of acid-forming bacteria.

It was known that starch can be separated into two fractions differing greatly in their physical properties. These are known as amylose and amylopectin. Both of these fractions yield maltose sugar on hydrolysis, with dextrins formed as intermediate products. Amylose is readily soluble in water while amylopectin is dissolved with difficulty. Starch when heated in water above a certain temperature swells to form a viscous opalescent paste. This attribute is commonly ascribed to the amylopectin. Because of its sticky nature and its capacity for sugar formation amylopectin, therefore, seemed to furnish, under suitable conditions, the necessary qualifications for the primary phase in the establishment of caries-producing plaques. The hulls of the starch grains also yield, in the cooking of starches and under oral conditions, a gelatinous substance which forms a tenacious binding material. Its retention on the tooth surfaces may also play a prominent part in the creation of plaque material that is capable of furnishing sugar. (Fig. 1.)

According to certain investigations, amylose and amylopectin differ chemically in relation to the phosphorus content. The work of other investigators, however, reveals no chemical difference in this regard. Starch in solution exists as aggregates or micelles formed by the association of varying numbers of its simple macromolecules (2). The less soluble fraction, amylopectin, is thought to be in a highly aggregated state while the readily soluble fraction, amylose, exists in a form in which the macromolecules are more dispersed. On this basis, the differences in viscosity and solubility of these fractions are explained.

Ptyalin is commonly understood to be a salivary enzyme capable of splitting

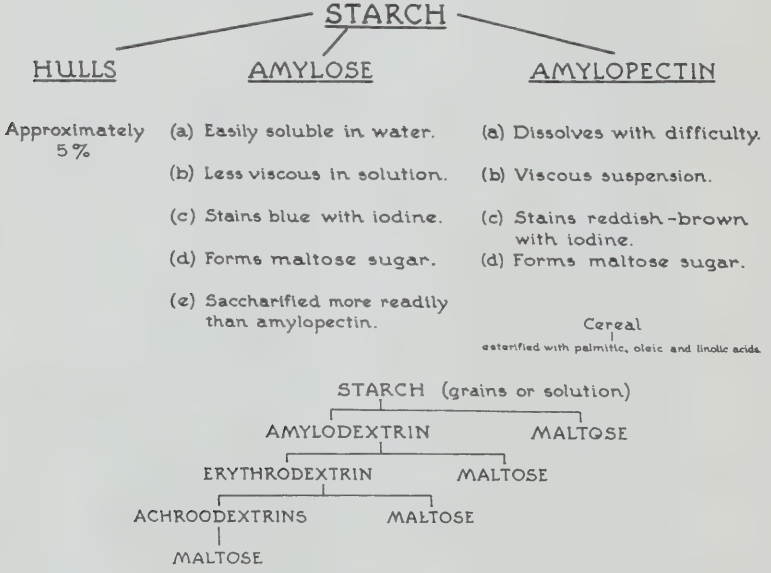

Figure 1.
Chart showing the fractions of starch.

starch and converting it into the sugar maltose. More recently the term 'salivary amylase' has tended to replace the older term. This amylase is described as being chiefly of the dextrinogenic type, that is to say, it induces the initial stage of starch degradation with reducing dextrins as the predominating products. This is marked by the destruction of the iodine colouring property. The secondary stage of hydrolysis by saliva is carried out with great rapidity, maltose being the main end-product.

It is significant to note that in starch paste degradation with human salivary amylase, the liquefying activity was found to be more resistant to heat than the saccharifying phase. It was found in our laboratory that when pure saliva had been heated to 75°C. for 60 seconds, rapid liquefaction of starch hulls took place at 37°C. but the blue coloration with iodine was not destroyed. That is to say, the dextrinogenic action was destroyed. Both of these activities can be brought to a standstill by heating the saliva in a water bath for 10 minutes at 70°C. But when heated to 65°C. for the same length of time, both the liquefying and dextrinogenic properties were found to be present. These findings were taken to indicate that human salivary amylase embraced both liquefying and dextrinogenic components.

It has long been known that amylose and amylopectin are not converted into sugar at the same rate. The amylose undergoes a rapid change while the conversion of amylopectin proceeds at a much slower rate.

Haldane (3) has pointed out that when any amylase acts on starch, a dextrin remains which arises solely from the amylopectin. This residual material, if broken down at all, is destroyed very slowly. Its digestion into maltose, however, is made possible when certain substances are added. It seems apparent, therefore, that any interference with liquefaction of amylopectin and starch hulls would tend towards the retention of carbohydrate debris on the tooth surface. This is commonly understood to be related, under favorable conditions, to the colonization of acid-forming bacteria and the localization of dental caries. In other words, under strong enzyme activity there is rapid liquefaction with sugar formation and reduced retention of debris. With weak enzyme activity, the liquefaction is slow, with prolonged sugar formation. With the initiation of the caries process, the local factors become dominant in the retention of carbohydrate debris.

It will be pertinent then, at this time to outline certain factors which tend to interfere with the effective removal of starch residues from the tooth surface. (1) Saliva poor in liquefying amylase. It is recognized that in general the velocity of reaction is proportional to the concentration of the enzyme.

In all probability, according to Maximow and Bloom (4), the albuminous cells in the salivary glands are the source of the amylase. It is known that chronic inflammation of the salivary glands may be responsible for partial destruction of the parenchymatous tissue. According to Moorehead and Dewey (5), this chronic inflammatory process may take place as a complication of chronic intoxications from bismuth, mercury and lead, or disturbances of metabolism. It is possible, also, that low grade infections of the glands by bacterial invasion from the mouth through the salivary ducts are more common than has hitherto been suspected. Over 40 years ago, Harris (6), demonstrated by histologic studies, the chronic fibroid changes in the salivary glands in these inflammations. It is obvious that marked destruction of the secretory cells of a salivary gland must have a bearing on the amylase output.

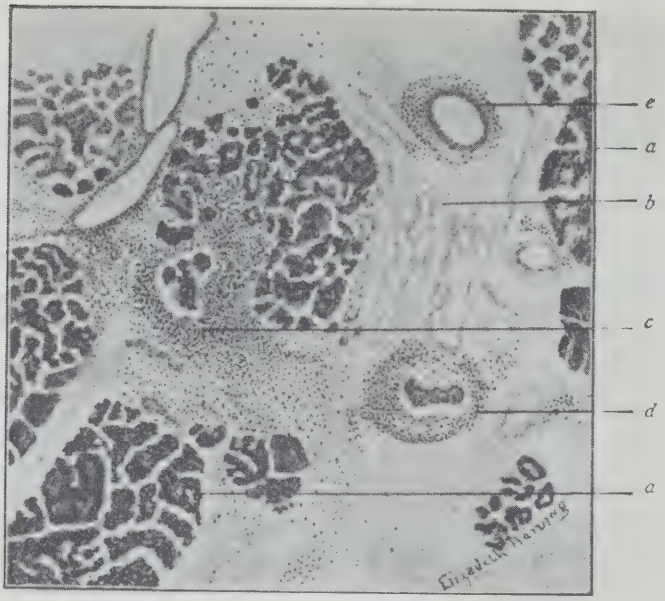

Figure 2.*

Section from right parotid salivary gland. (a, a) Normal lobules. (b) Thickened trabeculae. (c) Cellular infiltration into a lobule. (d) A duct, the wall of which is thickened and infiltrated with cells, and the lumen decreased in size. (e) An artery with cellular infiltration into its walls.

This whole problem is an important one, and further investigation is greatly needed. Fig. 2. Fig. 3.

(2) A reduced volume of saliva. This makes for reduced conditions of hydration, and in consequence impairs the enzymatic action. According to the studies on salivary secretion made by Dickinson (7), it was shown that frequently the salivary output was materially below the normal. The aetiology of marked suppression of salivary flow is by no means clear. It has been pointed out by Endelman and Wagner (8), that "people with scanty saliva, almost dry mouths and dry mouths are more susceptible to the ravages of caries," and they also state that this is probably due to the retention of sticky starchy deposits on the tooth surfaces in these conditions.

(3) Absence or lack of necessary activators or complements, e.g. chlorides and phosphates.

(4) Presence of inhibiting substances, e.g. acids, alkalis, sugars, soaps, and the salts of metals such as silver and mercury. It is of considerable interest to note that in 1910, Clarence Grieves (9), following his investigations on base metal versus noble metal appliances in Orthodontia, reported that from the wasting of German silver in the mouth, the saliva was profoundly modified. He felt sure that the metallic waste interfered with the enzyme ptyalin.

(5) The physical character of carbohydrate food. Rosebury (10), showed, in his carefully executed experiments on dental caries produced by pilot biscuit in rats, the relationship between hardness

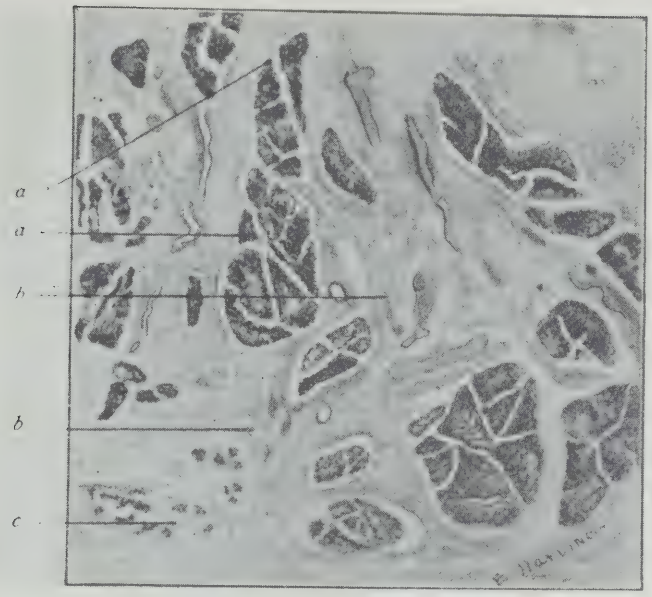

Figure 3.*
Section of the left parotid salivary gland.
(a, a) Normal lobules. (b, b) Greatly thickened trabeculae.
(c) Lobule almost entirely changed to fibrous tissue.

of the food and particle size. Both fissure and proximo-gingival caries were produced in the highest incidence when the hardest type of pilot biscuit was used. The soft biscuit caused no caries of either type. Coarsely ground biscuit produced more fissure caries than the finely ground, but on the other hand, proximo-gingival caries occurred in the greatest amount when the biscuit was finely ground. When coarsely ground corn was used, fissure caries was produced and in a higher incidence, than when pilot biscuit was used. With coarsely ground corn, however, much less proximo-gingival caries occurred.

From these valuable findings, it would seem that in the case of pilot biscuit, the hardness of the food was related to the problem of hydration and thus directly with the rate of liquefaction. The saliva of rodents is amylolytic and its action on the starch is obviously favored when the food is soft and easily moistened. The hard food is thus more resistant to the action of the amylases and its retention thereby facilitated. The particle size is apparently related to the mechanical problem of lodgment, the large particles tending to pack firmly in the fissures, the small ones being more suitable for interproximal accumulation.

In the case of ground corn, it must be pointed out that when it is uncooked, it is resistant to the action of salivary amylase. Finely ground corn, in contrast to the coarsely ground, is more effective in relation to the presence of a protective factor viz. corn oil. When the corn is finely ground, the oily constituent is more dispersed throughout the material. Rosebury and Karshan showed that the addition of corn oil to a caries-producing basal diet caused a marked reduction in dental caries in rats.

The foregoing five factors are con-

cerned directly with the rate of removal, and therefore, with the retention of carbohydrate debris on the tooth surface. They are related to the creation of an ideal environment for the colonization of acid-forming bacteria and the localization of acid production on the tooth surface.

It will be of interest to learn that in the liquefaction of the tooth-borne amylopectin, the removal of this sugar-forming material is by no means the only benefit obtained in the process. As early as 1926, Taylor and Lehrmann (11) noted the presence of small quantities of fatty acids in maize starch. These were regarded as organically combined with the amylopectin. More recently Ruhland and Wolf (12) have pointed out that in the seeds of cereals, the amylopectin is esterified with the following fatty acids viz: palmitic, oleic and linolic. Taylor and Sherman (13) were able to split up this ester by the action of lipase-free amylase, as well as by acids and bases. According to their findings the fatty acid content of whole corn starch was 0.73 per cent. The amylopectin fraction yielded approximately 4 per cent of fatty acids.

In our laboratory investigations, it was found that salivary amylase was effective in liberating fatty acids from starch paste. And with specially made smears taken from clean enamel surfaces in the mouths of patients, fatty acid material has been repeatedly demonstrated by certain staining methods.

We now propose to demonstrate briefly our reasons for stating that the production of fatty acid films on the tooth surface constitutes a second benefit in the liquefaction process, viz: protection of the surface against acid attack.

In the first place when a tooth was suspended in a fermenting bread or starch mixture, incubated at 37°C. for 3 or 4 days, with the pH about 4.5, it showed definite evidence of decalcification of the enamel surface (14). When a small amount of amylase-active saliva was added to a similar bread mixture, and incubated under approximately the same conditions of time, temperature and pH, no evidence of decalcification of enamel was found. It is evident, therefore, that in the second case some protective factor was operative which was absent in the first experiment.

It was known from previous experiments conducted in our laboratory that teeth suspended in acid solutions, e.g. dilute HCl and buffered solutions, pH 5.0, which readily produced decalcification were protected from the action of the acid solutions upon the addition of a small amount of sodium oleate. As the soaps of the higher fatty acids cannot exist in solutions under pH 9.0 (15), it is evident that under the above conditions, the sodium oleate dissociated into oleic acid. This was subsequently shown to be the case with special staining methods, and further it was found that oleic acid applied to the tooth surface, afforded the same measure of protection that was demonstrated in the case of sodium oleate.

A discussion of the stability of fatty acid films on the tooth surfaces in the two divisions of the human oral cavity, viz: the vestibule and the oral cavity proper is beyond the scope of the present paper.

Suggestions as to Prophylaxis and Therapy

The general regions on tooth surfaces where caries is initiated are three in number, viz: in pits and fissures; on proximal surfaces under the contact point; and on labial and buccal surfaces near the gingival line. When the patient is susceptible to caries, the regions prone to attack on the labial and buccal surfaces are clearly the portions unscoured

by the passage of food. In the immune patient, caries does not begin in these regions, in spite of the presence of adhesive debris. It would appear, on the other hand, that this deposit may actually exert a protective influence against the caries process. In the case of labial and buccal orthodontic appliances, the lack of scouring of the cervical regions is accentuated and in susceptible patients may thus favor the inception of the caries process, and also its extent.

In the case of proximal caries, there is also manifested a relationship between the area of poorly scoured surface and the liability to caries. When the embrasure is filled with proximal gingival tissue there is obviously less tendency to food lodgment. It is important, therefore, that in the placing of bands on teeth, the procedure should not involve the blunting of the gingival margin, with consequent formation of a space.

It is significant to note that thirty years ago Clarence Grieves (16) pointed out that careful and regular cleansing of the tooth surfaces in children undergoing orthodontic treatment made these surfaces about the appliances more liable to decalcification. He stated: "This would seem to indicate the loss of something; that some protective process had been interfered with." In the light of our present findings, it is tempting to suggest that this protective agency is related to the presence of the fatty acid film.

In the prophylaxis of cervical caries, the orthodontist should pay particular attention to the oral vestibule, that division of the oral cavity specially prone to the inception of this form of the disease. To this end, his main concern should be the speedy rendering of sticky carbohydrate plaques and debris into readily soluble material, and the establishment of protective substances on the susceptible tooth surfaces.

The essayist suggests the use of two combinations in the attainment of these desirable results. The first is a product known as Enzodent (Squibb) and is a powder rich in enzymes, particularly amylases, and contains activators, and is specially buffered for use in the human mouth.

According to laboratory tests, among its properties are the following:

(1) It liquefies the amylopectin and hulls of starch.

(2) It sets free fatty acids from the amylopectin.

These qualities would seem to eminently endow it for the task of rapid removal of starch residues from the susceptible surfaces of the teeth and the establishment of a protective fatty acid coating in these regions.

Where special protection of the tooth surface against acid attack is indicated, as for example, in enamel surface defects such as chemico-abrasion, and in extreme cases of susceptibility to dental caries, the following protective solution is recommended.

℞ Sodium oleate (neutral) ..... ℥iss
Glycerine ..... ℥iv
Rectified spirit ..... ℥vi
Hot water ..... ℥vi
Oil of peppermint ..... Mxx
Oil of wintergreen ..... Mxx
Oil of cloves ..... Mx
Ess. vanilla ..... ℥ss
Sol carmine ..... q.s.
M.
Sig.—10 to 15 drops on a wet brush to be used as a dentifrice as directed.

This solution is detergent, and is adsorbed on the tooth surface as a film of sodium oleate. This apparently undergoes dissociation in the human saliva, leaving on the tooth, an extremely thin coating of oleic acid. In the case of children showing a marked susceptibility to dental caries it is recommended to be used following the use of Enzodent. In the case of adults manifesting tooth

wasting such as chemico-abrasion,* it is used as a dentifrice on retiring.

**During the discussion, Dr. Box pointed out that in the production of chemico-abrasion, in all probability three factors are involved. These are as follows:*

(1) *Removal of a protective substance from the tooth surface;* (2) *decalcification of the superficial enamel; and* (3) *abrasion which keeps pace with the decalcification factor:—with the establishment of the characteristic smooth and polished surface. Chemico-abrasion mainly affects the labial and buccal surfaces of the teeth and appears to attack the upper teeth more frequently than the lower. Where cases in practice present chemico-abrasion in the oral vestibule with no supragingival calculus in the oral cavity proper, only the protective sodium oleate solution is recommended. It is understood, of course, that the patient should be instructed in a suitable method of brushing.*

Where patients present no chemico-abrasion in the vestibule with supragingival calculus prone to form in the oral cavity proper, the use of Enzodent is recommended. Enzodent is also prescribed for cases of moderate susceptibility to caries, and where marked susceptibility is manifested, its use is followed by the sodium oleate solution.

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* (Copied by permission from Coplin's "Manual of Pathology". P. Blakiston's Son & Co., Philadelphia. Case reported by H. E. Harris, M.D., in the Boston Medical and Surgical Journal, May 18, 1899.)

"We have led the world, many a time before today, on good expeditions and on bad ones, on piratical raids and on quests for the Hesperides. We can lead it again. We headed the procession when it took what we see now to be the wrong turning, down into the dark bog of greedy industrialism, where money and machines are of more importance than men and women. It is for us to find the way out again, into the sunlight. We may have to risk a great deal, perhaps our very existence. But rather than live on meanly and savagely . . . it would be better to perish as the last of the civilized peoples."—J. B. Priestley, per Dental Record.

Immediate Denture Service Using Labial Gum

by FRANK MARTIN, D.D.S., Toronto, Ontario

IMMEDIATE denture construction has developed from a type of temporary denture — just something to keep up appearances until the gums are healed, you might say — to an improved technique which is considered routine in many practices and is daily becoming more common. There may be an occasional case that does not adapt itself to this procedure, but most cases can be handled to advantage in this way.

Advantages of Immediate Denture Service

1. Normal muscle tone may be maintained, whereas, if the teeth are removed and the patient allowed to remain edentulous for a period, the muscles of mastication lose tone. Human tissue always tends to adapt itself to new conditions, so naturally the muscles of mastication and the muscles of expression change and establish themselves anew to accommodate the abnormality. The tongue also expands over the ridge and the cheeks fall in. All this, to a large extent, is prevented by immediate denture insertion.

2. Natural working bite relation is easily secured and maintained, and the abnormal habits of mastication developed by an edentulous patient are prevented. It is apparent that people only open their mouths wide enough to permit easy insertion of food. One can easily understand then, that it is not necessary to open so widely when the teeth are out, and so a new vertical dimension is established which is difficult to change again, as is witnessed by experiences in treating bite-opening cases.

3. Immediate insertion of a denture after surgery acts as a splint or bandage to the wound and protects it and assists in moulding the ridge. The patient experiences comparatively little discomfort following the surgery and insertion of the denture. A more desirable ridge for the denture base is secured by this method, because less absorption takes place and what does occur takes place more evenly.

4. The patient is able to continue business and other activities without the embarrassment of being edentulous. Furthermore, exact reproduction of aesthetics is quite possible if desirable, restoring the natural teeth with artificial teeth of the exact size, shape, colour and peculiarities.

5. The patient's pride is maintained. Perhaps one of the greatest factors in encouraging a patient's co-operation and assistance is to take advantage of his pride. Most patients, on account of appearance, abhor the necessity of going without teeth. Moreover, the longer the patient remains edentulous, the more difficult the adjustment will be and the tolerance and perseverance will be less, as pride is no longer as keen and the patient has learned to get along, after a fashion, without teeth.

The patient is almost as responsible for a successful denture result as the dentist. Co-operation by the patient with a determination to wear the dentures and adapt himself to his new dental apparatus is just as necessary as is careful denture construction by the dentist.

Let us assume then that the teeth have been x-rayed, good study models have been obtained and the diagnosis indicates

the removal of all the remaining upper or lower teeth. For the purpose of this discussion the upper will be described.

Preparation of the Mouth

The posterior teeth are first removed, that is, all the remaining teeth distal to the cuspid on each side. In cases where the molars have been out for some time without replacements, large tuberosities appear to develop. It is important that these be reduced if they tend to impinge or contact the lower ridge when the patient closes in centric.

If the health of the patient is to be adequately safeguarded, thorough removal of infected areas and necrotic substance is essential. Following this, the process should be trimmed, removing bony projections and reducing undercuts with the use of rongeurs or chisels and then smoothed with curettes or bone files. Excess soft tissue should be removed and care should be taken to see that all bony spicula have been removed and then the flaps sutured if necessary.

The usual post-operative instructions are given to the patient. To prevent soreness and swelling the patient should go to bed or at least rest for a period and apply ice-bags or cold compresses over the area of operation. The wound should not be disturbed by vigorous mouth washing for at least twenty-four hours. A sedative is prescribed to be used if necessary. The patient is brought back periodically for post-operative treatment and observation. Anywhere from one to two weeks should be allowed for the ridges to heal.

The Impression

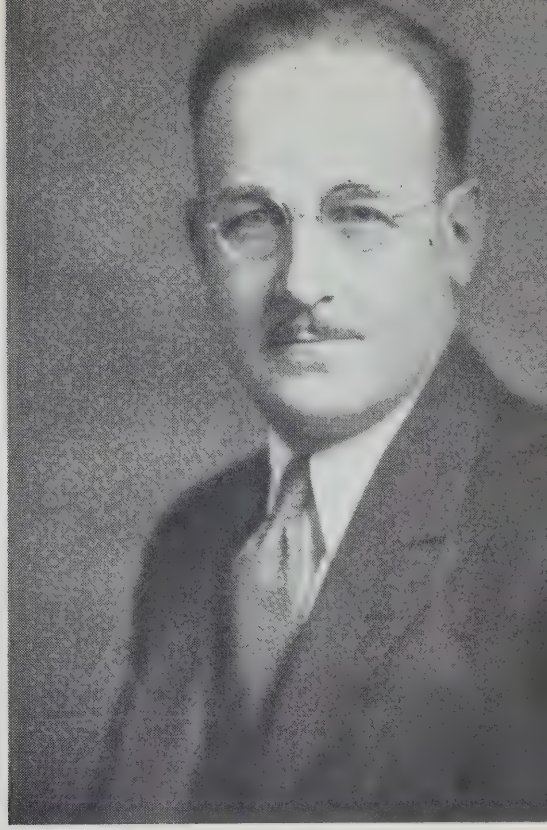
The next procedure is to obtain an accurate impression. There are a variety of methods of taking the impression for these cases. The following method is suggested, being practical and efficient: Select a tray of proper length and depth and fill with compound; before inserting it in the mouth a strip of baseplate wax is adapted over the anterior teeth and then the impression is taken over the wax. The whole is chilled and removed from the mouth, the wax coming away with the compound. Next, peel out the wax from the impression which leaves a free space around the anterior teeth. This space left in the compound impression will facilitate the insertion and removal during muscle-trimming, etc. Proceed to muscle-trimming, relieving hard areas and post dam. The impression may now be completed, using a hydro-colloid wash, plaster wash or one of the impression pastes. If the hydro-colloid is used it is advisable to dry the impression and paint the inner surface with chloroform, this leaving a tacky surface to which the hydro-colloid will adhere. For the latter two the compound should be cut nearly through on the labial over the cuspids and along the incisal edge so that the anterior section may be easily fractured to facilitate removal.

It is preferable to pour the impression in a medium of hard stone or half stone and half plaster. This will produce a cast that will not be too hard or brittle to carve.

The Bite and Selection of Shade

Bite blocks are now made, using a rigid baseplate material with wax bite blocks. Proceed to take bite and face bow registrations. Following this the shades for the individual teeth should be taken, making notes of fillings or areas to be tinted or stained in order to produce the desired aesthetic effect.

As an aid to estimate the amount the cast can be trimmed on the labial, a graduated periodontal probe is used, testing the depth of the free gum margin around the anterior teeth; these findings are marked on the cast over the respective teeth. The case is now articulated and the



FRANK MARTIN

posterior teeth set up, tried in and the occlusion carefully checked.

Setting-up the Anterior Teeth

The next step is the setting-up of the anterior teeth. A fine saw is used to separate the teeth on the cast, then one tooth at a time is removed from the cast and replaced with the selected artificial tooth. The markings on the cast are a guide to how far the necks of the teeth may be set into the sockets without impingement on the bone. When the case has been completely set-up the base is removed from the cast and the labial gum trimmed. This need only be trimmed to a distance about half way between the gum margin and the muco-buccal fold.

Care should be taken to disturb the area of attachment of the frenum labium as little as possible. When the cast is properly trimmed the base is placed on the cast again and the labial gum added — only one thickness of baseplate wax is needed. The denture is now finally waxed up and processed. When the denture is completed we are now ready for the immediate insertion.

Surgical Procedure

1. Premedication — It is advisable to have the patient in a quiet condition. One and one-half grs. of nembutal taken the night before and 1½ grs. one-half hour before operating is very effective.

2. Field of operation should be blocked off with cotton packs or sponges and painted with tincture of metaphen and before injecting, a topical anaesthetic is used. Infiltration anaesthesia is indicated. Never use more anaesthetic than is absolutely necessary for the elimination of pain. Used in large quantities and under force it tends to produce edema and soreness and may interfere with the proper seating of the denture. A small quantity

of the anaesthetic, properly placed, will be found effective and advantageous.

3. An incision is made obliquely from between the roots of the first and second bicuspids downwards and forwards to the distal of the cuspids, then continued along the gingival margins cutting through the interproximal gum septum so that the edge of the mucoperiosteal flap will be straight. Extend the incision along the linguogingival border in the same manner. Elevate the labial mucoperiosteal tissues to form a flap, exposing the area of bone to be trimmed. This is better accomplished prior to extraction; great care should be taken not to bruise or tear the flap.

4. Carefully remove teeth by rotation, using a lower root forcep.

5. Trim process the desired amount with the use of chisels or rongeurs and smooth with a bone file. In most cases very little removal of bone is necessary. Curette area thoroughly, removing all bone spicula, necrotic tissue, etc. The flap is now brought back into place and the denture tested for proper seating. Remove denture and make any adjustment necessary. Suture the flap in the desired position. Three sutures are usually sufficient.

6. Wipe out the inside of the denture with alcohol and dry. Coat the inner surface of the denture with anodyne surgical dressing and insert.

Instructions to Patient and Post-Operative Care

Instruct the patient not to remove the denture and to follow instructions given for post-operative care of the posterior extractions, viz. to go home and recline or go to bed, using a cold compress or ice-bag over the area of operation. Prescribe a sedative to be used if necessary, e.g. codeine phosphate ½ gr. with aspirin 10 grs. The patient should be seen for several succeeding days, at which times the denture is removed, adjusted for impingement or over-extension and until he feels confident in removing and replacing the denture. It is again washed out with alcohol, dried and the inner surface coated with an anodyne surgical paste.

The patient is told that he will not be able to chew on his new teeth for a week or so; to go slowly at first and not force them and that you will be well satisfied if he just gets accustomed to them in that time and can wear them without any discomfort.

After about a week or so the occlusion should be checked and the case properly ground to balance.

Duplicate Denture

If the patient desires a duplicate denture to act as a spare, it is advisable when setting up the first denture to order a duplicate set of teeth and set them up in wax when the first case is being set up. This set-up in wax is carefully packed in a box with the patient's name and when complete healing has taken place a properly muscle-moulded, compensated, peripheral-sealed impression can be taken. When the case is articulated the wax set-up is adapted to the cast and waxed up for a try in, the necessary adjustments made and the case processed. This is the easiest method of making a duplicate denture of which I know. The original artificial denture can then be relined if necessary. If this service is rendered, the patient will at no time be without teeth.

Medical Arts Building.

The educated man is a man with certain subtle spiritual qualities which make him calm in adversity, happy when alone, just in his dealings, rational and sane in the fullest meaning of those words, in all the affairs of life.—Ramsay MacDonald.

The Maxillary Sinus:

Some Dental Diagnostic and Surgical Problems

by GEORGE A. MORGAN, D.D.S., Toronto, Ontario

DESPITE recent rhinological-dental co-operation, there still remain many diagnostic problems concerning the relationship of the teeth to the maxillary sinus. These problems demand, on behalf of both the rhinologist and the dentist, additional study and co-operation.

Anatomical Findings

The maxillary sinus is a cavity which lies in the maxilla. It is in a form roughly pyramidal, the apex lying toward the malar bone and the base formed by the lateral wall of the nose. The hiatus semilunaris, the opening which connects the sinus with the nasal cavity, lies high up on the nasal wall of the sinus and opens under the middle turbinate bone in the nose. The antrum is sometimes divided into two or more parts by incomplete bony septums. It is lined throughout with mucoperiosteum equipped with cilia which wave secretions toward the hiatus semilunaris and out into the nose.

The floor of the sinus is usually very uneven due to the prominence corresponding to the roots of the molar teeth. In most cases the bone separating the teeth from the sinus is very thin and occasionally the roots project into it. The teeth which come into closest relationship with the sinus are the first and second molars, but the sockets of any of the teeth lodged in the maxilla may, under diseased conditions, communicate with it. As a rule the cavity of the sinus is single but occasionally specimens are seen in which it is divided by long septa into chambers.

In the majority of cases, the sinus floor begins between the cuspid and second bicuspid, in 25% of cases at points from the second bicuspid to the first molar and in approximately 3% of cases it extends as far forward as the cuspid. The second molar roots occupy positions in the walls of the sinus more frequently than any other tooth. In a great percentage of cases, some obstruction, generally in the form of a septum is to be found on the floor of the sinus. These septa are invariably found over the teeth, running normally in a mediolateral direction.

Roentgenograms

The most important requisite in detecting individual anatomical variations is the roentgen ray and since a clear picture of the apices of the maxillary molars is a prime essential, it is necessary that a definite technique be followed to obtain satisfactory results. The patient should sit erect in the chair with the sagittal plane of the head perpendicular and the occlusal plane of the maxillary teeth parallel to the floor. The film is placed with the long axis in a horizontal position, so that the anterior margin will come between the second bicuspid and first molar. The lower edge of the film should extend approximately one-eighth of an inch below the occlusal surface of the teeth, the teeth being parallel and vertical with the film. With the film in this position the operator places the patient's index finger on the median line of the vault, thereby holding the film in place by slight pressure along the upper edge. Pressure by the finger should not be exerted towards the teeth. The film should not be bent before insertion. The rays are directed at right angles to the line of bisection between the film and the teeth, with the central portion of the rays directed underneath the malar process and centred at the second molar. In the majority of cases the angulation will be approximately 25 to 30 degrees.

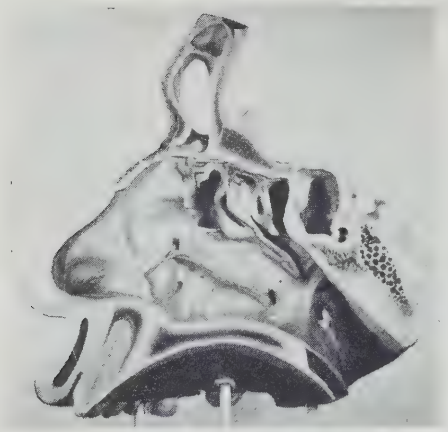


Fig. I

Represents sagittaly the approximate anatomical nasal relationship, physiological nasal antrum opening.

Diagnosis

In order to intelligently interpret roentgenograms of the maxillary sinus region, one must have a definite and clear cut picture of the possible anatomical normal and abnormal variations coupled with a knowledge of the normal dental anatomy and the individual bone characteristics surrounding this area. Variations in the size and shape of the maxillary sinus; of the zygomatic process; height and width of the vault of the mouth; the size and shape, if present, of torus palatinus or torus maxillaris buccallis; and the comparative inaccessibility of this region, are a few of the difficulties which should be considered in a dental diagnosis. One should keep in mind that approximately in 1% of cases the maxillary antrum extends as far forward as the lateral tooth.

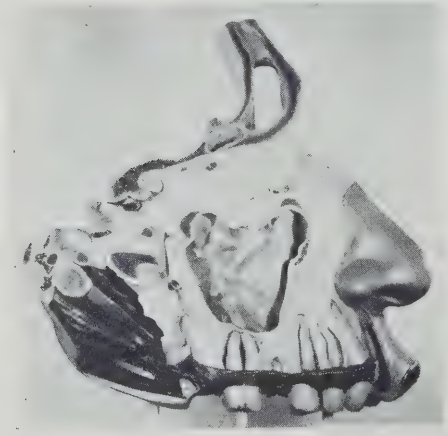


Fig. II

Represents the approximate anatomical relationship of a normally sized maxillary sinus to the molar and bicuspid teeth.

Fig. III

Represents the approximate anatomical relationship of a normally sized maxillary antrum to the molar teeth, with antrum septum.

Surgical Problems

The relationship of the maxillary molar and bicuspid teeth to the maxillary sinus is of paramount importance where the removal of such teeth is indicated. In many instances the apical ends of these teeth will lie in close proximity to the antral floor; so long as this is the case, accidental or pathological perforations will be frequent. When such a perforation does occur, it is best to allow the socket to fill with a normal clot and if trouble follows refer the patient to an otolaryngologist to see that the physiolog-

ic opening into the nose is sufficient to take care of the drainage. It is generally conceded that most perforations of the antral floor are the result of an attempt to remove fractured apical ends of the lingual root of the maxillary first molar. The fracture is usually due to a buccal luxating movement. Maxillary molars and bicuspids which lie in close proximity to the antrum and which have anatomical variations such as hypercementosis or malformed root structures, should be surgically removed. It is also suggested that this technique be employed where heavy buccal bone structure precludes the possibility of a straight extraction.

In the case of root tips which have been accidently pushed into the antrum it is suggested that a roentgenogram of the area be taken before any attempt at removal is made. If the lost root tip lies directly above the antrum puncture an enlargement of the opening together with air pressure from within will frequently blow out the broken fragment. Air pressure from within is secured by holding the nose and asking the patient to blow out through the nasal passages. This procedure forces air into the sinuses and has a tendency to dislodge the root.

If the root has moved from a position directly above its entrance opening it is suggested that the socket be cleaned of any debris and an antrum window made overlying the apparent position of the root and the root fished out by means of a platinum loop needle.

Because of the close proximity of the root apices to the floor of the sinuses there is great possibility of radicular or root cysts pushing their way into it. In some cases when this occurs, the diagnosis, if the cyst cannot be traced directly to the root of the tooth, is obscure, because of the possibility that antral septa are present. Some method must be used that clearly differentiates the antral cyst from a sinus divided by a septum and clearly demonstrates the thickened antral membrane found in chronic sinus infection.

By use of radiopaque solutions injected into the sinus under suspicion, the antral cyst, the thickened membrane, the area of polyoid degeneration of chronic infection and antra divided by septa, may be clearly and positively demonstrated.

Conclusions

Teeth such as the maxillary molars and bicuspids which occupy intimate relations to the floor of the sinus require special care and consideration in the treatment of disease and in repair. The roentgenogram gives us more information relative to the structures adjacent to the maxillary sinus than perhaps any other clinical means of study. One cannot interpret what is written on a film unless he knows anatomic structure, its variations and how the normal changes in disease.

419 *Medical Arts Building,* 170 *St. George Street.*

To be able to forget the right things is important in the physical, intellectual and emotional spheres of life, and just as much a help to successful living as a good memory.

The little irritations with which we have to deal every day should be forgotten the moment they have happened. . . . "A mind at leisure from itself" is the happiest thing in the world. And it cannot be at leisure if it is constantly being reminded of unimportant failures and trivial obstacles, for this drains away energy and cheerfulness and self-control.

Cultivate the art of forgetting, remembering that it is an art: then, like the wise traveller, you will travel easily, for you will travel light.—N. M. Barnes, M.A., in the "Psychologist."

Sterilization in Dentistry

by NORMAN MacL. HARRIS, M.B., Ottawa, Ontario

Formerly, Chief of the Laboratory of Hygiene,
Department of Pensions and National Health, Ottawa

THIS year marks, I believe, the centenary of the establishment of dentistry as a profession, when there was opened in 1840 the first dental college in Baltimore and the founding of the first dental journal.

With the passing of the years, what wonderful advances have been made in the art of your profession, bringing as they have immense relief and comfort to suffering humanity: I cordially congratulate you! Yet there remains open a wide field for research in dental diseases and infections and, in relation thereto, I would call your attention to an admirable paper appearing in SCIENCE, September 20th of this year (1940), by an outstanding member of your profession, Doctor Theodor Rosebury of the School of Dentistry, Columbia University, New York City.

Some time ago I was asked by one of your Executive Officers to address you on the subject of sterilization, disinfection, and some kindred topics. This honour I warmly appreciate, but I fear that I can only speak to the subject in a very general way as I am not a dental surgeon; therefore, I trust that you will bear with my shortcomings.

In the past, man's progress along all lines leading up to the state of civilization which we today enjoy has been slow and by paths of empirical endeavour. In all branches of modern science we can trace throughout the long interval behind us efforts and results, crystallized into rule-of-thumb methods, passed on to succeeding generations and by them slowly improved upon.

The first glimmerings of a scientific method of approach to our present-day problems was the gradual formation in the Middle Ages of a body of men known to us as the Alchemists, who were possessed of inquiring minds and given to experimentation and whose methods laid the foundation of the science of chemistry and the expansion of knowledge in the many other fields of Natural Science, as known to us today.

Approaching now the topic in hand, it is interesting to note that evidence has been accumulated to show that pre-historic man had developed methods of preserving from putrefaction and decay such food supplies as fish and meat by means of salting, drying and smoking, thus unwittingly making use of antiseptic agents against spoilage by bacteria and moulds. The Ancient Egyptians carried those practices much further by using bitumen and aromatic gums in the preservation of the bodies of the dead. In times of epidemic diseases in the Middle Ages and later, the burning of aromatic plants, gums and sulphur was employed to drive off the "evil spirits" (bacteria) from their midst, thus establishing the process of modern fumigation which we still employ under certain circumstances.

But no real practical progress in the employment of disinfectants as such was made until 130 years ago when Cutbush in England, believing that impure water caused disease, advocated the application of quicklime to such impure water supplies, and, further, he advised that sleeping quarters aboard ships in which disease had occurred be repeatedly whitewashed

with lime. Alcock shortly afterwards suggested the use of chlorinated solutions of lime or soda for similar purposes —and all this long before Pasteur laid the foundations of modern bacteriology!

I need not here dilate upon the brilliant efforts of Lord Lister in the closing years of the 6th decade of the last century, which first brought to the attention of the world his wonderful results in combatting septic surgical wounds by the use of carbolic acid—all of which must be well known to you. With refinements of bacteriological technique becoming advanced, Koch, followed later by other investigators, laid securely the foundations of our present knowledge of the disinfecting action of metallic salts and other agents upon bacteria, either in pure cultures, in infected discharges, or in contaminated water supplies.

From such studies arose a new terminology which, for a time, led to some confusion in their use. Only recently have the terms "antiseptic" and "disinfectant" been clarified; the former term refers to the power of an agent in preventing putrefaction but given prolonged exposure it may ultimately be germicidal; the latter term indicates the power of an agent to efficiently kill any infective bacterium existing in material outside the body. Other terms, as "germicide" and "bactericide," are self-explanatory. The term "bacteriostasis," introduced by Churchman a short while ago, conveniently explains the action of certain dyes and other agents in effecting suspension of microbial metabolism and reproductive functions without actual death of the microbe.

Finally, we come to the term "sterilization"; this is applicable to the action of an agent whereby effectual death of any form of life, be it microscopic or macroscopic, is accomplished.

In practice, the means at hand for effecting sterilization are several and are cited as follows:—

(a) Steam under pressure and high temperature, as in the autoclave.
(b) Free-flowing steam, as in the Arnold sterilizer.
(c) Boiling water.
(d) Dry heat.
(e) Filtration through earthenware or porcelain bougies, or collodion membranes.
(f) By chemical agents.

The choice of any one of these agents is, of course, determined by the type of material to be sterilized, or by the exigencies of the situation confronting the operator. The following data concerning them may be of some interest, however:—

(a) The use of steam under pressure in the autoclave guarantees sure success in bringing about absolute sterilization, killing, as it does, both vegetative and spore-bearing bacteria. To effect this the time of exposure should be half an hour at a pressure of 15 pounds and at an ascertained temperature of 121°C.

(b) Free-flowing steam, as used in the Arnold sterilizer, cannot be expected to kill any but vegetative forms of bacteria, although with an exposure of one hour some types of bacterial spores perish. If an hour's exposure is repeated on the following two days, practically all spores are killed.

(c) The effects of boiling water are in some degree similar to those of free-flowing steam. An exposure of instruments and glassware for 20 minutes brings death to all vegetative cells and some spores which, for most practical purposes, gives a safe margin for operative work.

(d) Complete sterilization by dry heat is brought about by maintaining a temperature between 165 and 170°C. for one hour in a sheet-metal oven. Its usefulness is confined to the treatment of glassware such as flasks, culture tubes and

apparatus, either of glass or metal. Dry-heat sterilization has little or no field, I take it, in dental practice.

(e) Perfect sterility of such fluids or solutions that may be damaged by heating is obtained by the use of filter candles of either earthenware or porcelain, or by the use of membranes of collodion. Such filtration is carried out by applying either suction or pressure. For instance, the solutions of local anaesthetics, etc., used by your profession are so processed.

(f) Chemical sterilization is of great importance in dentistry. The range of choice of reagent is wide, encompassing the use of carbolic acid (5%), mercuric iodide (1:5000), metaphen, formalin (1:2000), lysol, dettol (a phenolic derivative), etc. Exposure of knives, curettes, burrs and other instruments to any of these reagents should not be less than fifteen or twenty minutes to be on the safe side. At this point I might remark that the hand-piece of the dental engine, when undetachable, may be sufficiently well disinfected by wiping thoroughly with gauze soaked in a solution of formalin (1:2000); this procedure would also apply to other parts of the engine which might be more or less constantly handled. Further, it may not come amiss for me to say a few words upon the handling of carpules. The metal holder should first of all be sterilized by boiling for 15 minutes and, before inserting the carpule in the sterilized holder, the lower end of the carpule which is to be punctured by the needle ought to be wiped with a cotton pledget lightly soaked in iodine solution. In any following injection, the needle of the carpule carrier should be burned off in alcohol before inserting the carpule.

Stock solutions of these disinfectants ought to be made up freshly every six weeks to avoid deterioration, with consequent loss of effectiveness.

A word as to the use of alcohol as a disinfectant. Textbooks state that a 70% solution in water destroys vegetative bacteria but not spores; as a matter of fact, it is a poor reagent as it has been demonstrated that many bacteria of pathogenic significance are resistant for quite a time to its effects. Instruments dipped in 95% alcohol and then passed through a flame, igniting the alcohol, is a widely used method of sterilizing but, unless thoroughly done, it cannot be wholly relied upon to bring about complete sterilization.

Oral Surface Disinfection

Discussion of this topic is undertaken by me with some diffidence, lacking as I do little practical experience. The most commonly used agents, I assume, are tincture of iodine (2½%), metaphen, mercurochrome, acriflavin and merthiolate.

The literature contains references to comparative studies of the efficiency of these reagents but there is no unanimity as to one or other being the most efficient. At a venture, I might place them in order as follows:—iodine, metaphen, acriflavin, merthiolate and mercurochrome. In passing, it may be noted that in the treatment of dental caries carbolic acid is favoured as an application to the drilled-out cavity before filling.

As for oral mouth-washes, frequently claimed a little too ardently by their makers to be "antiseptic," I can do no better than quote from McCulloch's textbook, "Disinfection and Sterilization" (Lea & Febiger, 1936)—"Most 'antiseptic' mouth washes are merely pleasantly flavoured liquids which may be used to rinse the mouth. Some contain chemical agents germicidally active if used in adequate concentration and maintained in contact with the organisms sufficiently long; but it has not been found practical to incorporate enough disinfectant into mouth washes to prove germicidal under conditions of actual routine use."

Specific Infections

Closely related to the foregoing theme is that of the treatment of ulcerative gingivitis caused by the Vincent bacterial complex. Whether or not there is wrapped up in this process a basal nutritional deficiency, there yet remains the pressing problem of local treatment.

During the last war, Captain F. F. Bowman, C.A.M.C., first proposed the local application of arsenic in the form of Fowler's Solution (Liq. Arsenicalis). Reports which followed this line of treatment amply demonstrated its success in controlling and eradicating the bacteria involved—and of this I can offer personal corroboration. In later years the use of one or other type of salvarsan has been advocated and has probably given gratifying results. Ojections to the use of these may be based on the costliness of the drug, to the technical difficulties encountered in its preparation, and to the danger of increasing toxicity of the liquid "neo"-preparations, occasioned by the action of atmospheric oxygen, thus rendering their use hazardous.

There now remains one other drug to be considered in oral infections, viz., sulphanilamide and its varients sulphapyridine and sulphathiazol. The perusal of papers appearing recently in the British Medical Journal leaves one with a mixed impression of value attached to the use of this drug locally. The treatment of infected wounds and ulcers with either the liquid form, prontosil, or by the powdered drug is regarded by some as disappointing; successes are reported by others. A writer in the journal, "Surgery," states that he had a successful outcome in the treatment of compound fractures with the drug in powdered form. I quote these reports, as I understand that in some quarters dental surgeons have used the powder with satisfaction in packing cavities after extraction, while others have not been enthusiastic over their results. It may be pointed out that in vitro tests show that sulphanilamide and its close relatives exert little or no germicidal effects on test bacteria, and at best one secures evidences of bacteriostatic action only.

In this particular connection, one must not forget that in healthy persons Nature herself interposes a strong resistance to bacterial invasion through the action of the natural defences, complement and immune bodies, circulating in the blood, as well as in the local tissue elements provided that they are not severely damaged by operative manipulation; hence the common practice in dentistry of favouring the formation of a blood-clot in the extraction cavities without the aid of any antiseptic agent. Where an acute infection may follow upon an extraction, repeated flushings of the cavities with any of the usual germicidal agents are indicated, and followed up in the intervals with light packing of antiseptic gauze. Should evidences of bacterial invasion of the blood-stream (developing bacteremia) be detected, or even suspected, then the patient ought to be turned over to a physician for medical treatment.

So now, when all is said and done, I may be permitted to summarize by stating that, in dental practice, the greater the attention paid to the general principles of sterilization and disinfection, the better will be the results clinically, with consequent satisfaction both to the practitioner and patient alike.

"Success in any scientific career requires an unusual equipment of capacity, industry and energy. If you possess that equipment you will find leisure enough after your commercial work is over to make an opening in the scientific ranks for yourself. If you do not, you had better stick to commerce."—T. H. Huxley, per Dental Record.

The Forum

• NICOTINIC ACID AND VINCENT'S INFECTION

(A Preliminary Report)

ONE of the symptoms of pellagra is an ulcerative stomatitis characterized by redness of the tongue and soreness of the oral mucous membranes with areas of necrosis, especially in the mucobuccal fold and floor of the mouth under the tongue. Nicotinic acid, when administered to pellagrins, relieves the mouth symptoms in from two to three days.

Because of the preponderance of Vincent's organisms in the mouth lesions of pellagrins, it is contended by some that the local situation is Vincent's infection. Upon this assumption, it has been advised that Vincent's infection be treated with nicotinic acid. In our opinion the lesions found in the mouth of pellagrins are not clinically the same as those found in Vincent's infection even though the fuso-spirochetes are found in both instances. To settle this dilemma as to whether Vincent's infection is a nicotinic acid deficiency, the Periodontia Department of New York University College of Dentistry undertook an investigation of the efficacy of large doses of nicotinic acid in cases of acute Vincent's infection.

With the advice and help of Dr. Norman Jolliffe of the New York University College of Medicine, ten cases of acute Vincent's infection with all the classical symptoms were treated with one thousand milligrams of nicotinic acid daily, administered in ten hourly doses of one hundred milligrams each. The treatment was continued for five days.

Results

After the fifth day, the drug was discontinued in each case because the oral clinical picture not only did not improve but in most cases became aggravated. There were no severe reactions from the use of nicotinic acid except for a transitory flushing, burning and itching of the skin. Although these reactions are disagreeable they last only a short time.

When the nicotinic acid treatment was stopped after the fifth day and the patients were given the routine treatment prescribed by the Periodontia Department and outlined in the Textbook of Periodontia, the patients all improved in from three to four days.

From the above findings it would appear that:

1. True Vincent's infection is not necessarily a symptom of nicotinic acid deficiency.
2. Mouth lesions found in patients with nicotinic acid deficiency are not the same clinically as the mouth lesions of Vincent's infection.
3. If Vincent's infection is finally found to be a deficiency disease, nicotinic acid deficiency plays only a small part in its aetiology.
4. The finding of Vincent's organisms does not indicate the presence of Vincent's infection. D. T. Smith states that fuso-spirochetes are found in more than twenty different diseases.

Samuel Charles Miller
William M. Greenhut
Harry Roth.
N. Y. Jour. of D., Nov., 1940.

• RESULTS OBTAINED IN THE TREATMENT OF HEADACHE WITH THE INHALATION OF PURE OXYGEN

by W. C. ALVEREZ, M.D., Division of Medicine, and A. YORK MASON, M.B., Fellow in Surgery, Mayo Foundation.

A REPORT is made of the results obtained with the inhalation of practically undiluted oxygen by ninety-seven persons suffering from headache.

Apparently, when the headache is migrainous, there are about four chances in five that the inhalation of oxygen will relieve the patient, and when the headache is not migrainous there is only about one chance in three that this treatment will help.

The results appeared to be better with prompt institution of treatment than with delayed treatment.—*From Proceedings of the Staff Meeting of the Mayo Clinic, Sept.* 25, 1940.

• FACIAL DEFECTS

THE modern dentist is often called upon to repair facial defects as well as strictly dental deformities by artificial replacement of missing parts, Dr. Arthur H. Bulbulian, director of the Mayo Clinic Foundation museum of hygiene and medicine, said at the centennial convention of the American Dental Association in Cleveland.

The most widely used type of prosthesis, or restorative treatment, is, of course, the replacement of missing teeth.

"It is not surprising, therefore," he added, "to find that the dentist because of his familiarity with the anatomy of the mouth and face and because of his wide experience with the technique of manipulating various dental materials such as vulcanite, gold, silver, porcelain and the newer synthetic plastics, is often called upon to do prosthetic work, not only in the mouth, but on the face as well."

Such restorative procedures are carried out in many cases with the collaboration of the plastic and oral surgeon, Dr. Bulbulian said.

"The benefits that can be derived from such a joint effort," he went on, "were well demonstrated during the first World War, which produced thousands of mutilated faces that could not always be repaired with surgical procedures alone. In such cases it was found that carefully planned prosthetic appliances used either as a preliminary or as an auxiliary to a surgical procedure, or in place of plastic surgery, gave the patient a greater degree of satisfaction than could have been possible to obtain with a surgical procedure alone."

Facial defects needing repair of this kind come most commonly from injuries and mutilations received in accidents, but are also caused by systemic diseases and malignant growths, Dr. Bulbulian said. He continued:

"Generally speaking, the purpose of prosthetic restorations about the face and mouth may be aesthetic"—referring to ear or nose replacements—"or it may be functional, as in the case of an acquired or congenital cleft palate by an obturator in order to improve speech, or may be both aesthetic and functional, as it is in a case of restoration of an entire nose and upper lip improving the patient's appearance and enabling him in his speech."

First consideration in such repairs is always given to plastic surgery with its special methods and skills, Dr. Bulbulian declared. "On the other hand," he said, "restoration by prosthetic methods is possible and can be very useful under the following conditions:

"When the patient is advanced in age.

"When the patient needs an immediate restoration in order to carry on his or her work following removal of malignant disease, before reconstruction by surgical means is advisable.

"When the patient is unable financially to pay for hospitalization for plastic surgery.

"When plastic operation is considered inadvisable because of the location or extent of the defect."—*A. D. A. Release.*

• CHILDREN OF PRE-SCHOOL AGE

MORE than eighty per cent of the children arriving for their first day of school bring the handicap of poor teeth, according to Dr. Richard C. Leonard, chief of the division of oral hygiene in the Maryland State Department of Health in a speech before the centennial convention of the American Dental Association in Cleveland.

Dr. Leonard called for a nationwide program of dental care for pre-school children and told the convention section on children's dentistry and oral hygiene that because the schools have been the major point of attack for lay education

in dental health, a false impression has been created in the public mind that the dental problems of the pre-school child are of no importance.

"Hence," he said, "we who are interested in community health find ourselves trying to combat mouth ill health in children after they have been permitted to reach school age—and after, according to conservative estimates, more than eighty per cent of them have dental malconditions.

To make the nation aware of the problem, Dr. Leonard said, new media of education must be found. He described recent educational experiments by public health agencies, especially in his own state, where each year the health department sends out a motor caravan called "the Healthmobile." The caravan by previously arranged schedule visits ten or eleven counties, spending from five to ten days in each. It provides clinical service, but an important adjunct to that service is an educational program of advice for mothers on the dental problems of their children.

Dr. Leonard commended this and other innovations of educational technique, but said that means must be found to extend their application to all sections of the country in need of dental care and education.

"If we cannot persuade pre-school children to come to the dental office," Dr. Leonard said, "or the parents to bring them, it may be necessary for us to take the dental office to the children. This plan can and has been accomplished by some health departments through the inauguration of a mobile dental clinic in auto trailers. These mobile clinics serve a particularly laudable purpose when they go into the isolated rural sections of a state or county, carrying not only the equipment and materials with which the dental clinician may render corrective service but bringing the spoken and written word, movies and posters that tell the story of mouth health."

Plans for a national pre-school dental program should be made in co-operation with the many unofficial agencies for whom such a program would have direct interest, Dr. Leonard said:

"P. T. A.'s, women's clubs, Legion auxiliaries and many others are all possible sources of valuable aid. They seek worthy projects to support. Let them support this project of pre-school dental health."—*A. D. A. Release.*

• SINUSITIS

MOUTH infection is an important contributing factor in chronic sinusitis, a disease which can seriously incapacitate its victims, Dr. George W. Christiansen, president-elect of the American Society of Oral Surgeons and Exodontists, declared at the centennial convention of the American Dental Association in Cleveland.

The sinus may be contaminated from the mouth, he said, "by diseased root ends of upper bicuspids and molars, by retained unerupted cuspid, bicuspid or molar teeth, and by extraction accidents whereby the floor or lateral wall"—that is, of the sinus—"is perforated."

Retention of questionable teeth, whether in normal position or unerupted, may injure the sinus floor, Dr. Christiansen warned, and urged the utmost caution in considering each case where any doubt exists before advising retention.

He pointed out the seriousness of sinusitis and its possible consequences. "Regardless of the beginning," he said, "the generalized effects of the disease are far reaching and manifest themselves in a number of crippling ways, chief of which are bronchial infections although conditions such as arthritis and neuritis are frequently attributed to the same source."—*A. D. A. Release.*

• PUBLIC HEALTH VS. SOCIALIZED DENTISTRY

Guest Editorial in North West Dentistry

by WM. A. O'BRIEN, M.D., Director of Postgraduate Medical Education, University of Minnesota.

EVEN informed laymen believe that dentists are opposed to further extension of public health services because they confuse public health dentistry with state dentistry. The same misinformation prevails about medicine. Dentists and physicians are responsible for this unfortunate interpretation, for we have never made it clear which kinds of socialized service we approve. Socialized dentistry or medicine is that branch of service which is paid for by society. It includes care of the indigent, public health, care of the tuberculous and the insane, aid for crippled children, military and naval medicine, et cetera; in fact, all services for which the individual is unable to pay or services which protect society against those who would menace our health or safety. To a large degree, society underwrites the bill for dental and medical education. In addition to these tax supported forms of professional service, we have those which have been developed on an insurance basis (workmen's compensation) and the voluntary groups, such as the Christmas Seal and the Red Cross.

Our anxiety to show the unfavourable results of state medicine has contributed to the confusion. It has always seemed best to the writer to state specifically that the dental and medical professions are in favour of certain types of socialized service, *but not in favour of socialization of the professions.* When such a statement is made, we should include a list of those types of service which not only dentistry and medicine approve, but which all society approves. Another point which must be kept in mind is that members of the dental and medical profession asserted their leadership in bringing about these desirable social changes. A little investigation of the origins of these socialized services will reveal that, while they were originally approved by dentistry and medicine, they were disapproved by many of the other members of society in the beginning.

Public health services include studies of our various dental and medical problems and suggested means of recognition and correction. For every citizen, there is the requirement that we understand personal health as well as public health. Let us take the cancer problem as an example. The story of cancer as it affects society is brought to us by the public health agencies. As individuals, we must learn the warning signs so that we may act promptly and wisely. This is personal health. In addition to this, we must also ascertain whether our communities provide this same educational service for others. In the matter of recognition and correction, even though we may be able to care for this ourselves, we must also be certain that the community provides a similar opportunity for those who are less privileged. The people turn to the professions for advice and guidance in these matters.

Every professional man should study the public health program in his community. It is to be remembered that the more people learn about health, the more they will want to do something about it. When the dentist, through examination of school children, finds abnormalities, this information is brought to the attention of the child and his parents. A certain number of parents will be able to pay for the correction, while a certain number will not. Society must pay the bill for the latter group. It is only a very narrow individual who cannot see the importance of public health efforts. Public health has accomplished more than any other form of scientific service through the prevention of disease and the detection of abnormalities. Every dentist

should make a special effort to correct the misapprehension so common today that we are against public health services because we are against the socialization of the professions.

• DENTURE SERVICE

ACCORDING to Dr. O. M. Dresen of the Marquette University dental school, who addressed the centennial convention of the American Dental Association in Cleveland, photographs of the patient are of great value to the dentist in constructing dentures, to restore facial outline and contour, and to determine tooth position and arrangement.

In fact, Dr. Dresen said, even if you are the rare person who has no pictures of himself, the dentist may turn photographer and take some, in order to create dentures as nearly like the natural teeth as possible.

Such techniques are part of the whole modern advance which has grown out of dentistry's new conception of denture service, Dr. Dresen told the full denture restoration section of the convention.

"The dentist of today," he said, "no longer injudiciously extracts and then attempts to construct dentures. Denture service of the present time requires proper diagnosis, preparation of the ridges, and the use of pre-extraction records, so that a complete service may be rendered to the patient, thus taking the construction of dentures out of the mechanical field and placing it in its proper place in dentistry as a true health service."

Among the other improvements in this service to the public, Dr. Dresen continued, is the elimination of the lag between the time of extraction and the time the new dentures are placed in the mouth.

"In as much as all dentures should be relined or remade when required by mouth conditions and changing aesthetics," he said, "it is advisable to insert dentures immediately following the removal of teeth or as soon thereafter as possible.

"The patient of today is demanding this type of service, for one of the main reasons many individuals delay much longer than advisable, was their reluctance to being forced to pursue business and social contacts while edentulous, and during the period of healing. The old theory of waiting for 'shrinkage' to occur in order that a so-called permanent denture could be constructed, has proved itself a fallacy."—*A. D. A. Release.*

• HARMFUL EFFECTS OF EXTRACTION

THE extraction of teeth is not without danger. Since bacteria reside around the gingival margins of all teeth and in the periapical regions of many, there is every reason to suspect that the trauma of operation may force these bacteria into the tissues and blood. The studies of Okell and Elliott are of especial interest in this regard. They made blood cultures immediately after tooth extraction in patients with obviously infected mouths and recovered streptococcus viridans in 75 per cent of cases and in 34 per cent of those with apparently healthy mouths. Other observations support these. Although bacteremia is usually harmless, many instances of fatal and non-fatal systemic infection and relapse of disease are recorded after the extraction of teeth.

Abscess in the lung occasionally follows the aspiration of blood, tissue or fragments of bone or teeth during or after the extraction of teeth, especially when the patient is anaesthetized. According to King and Lord, 12 per cent of a group of 227 cases of lung abscess studied followed extraction of teeth.—Reimann, H. A. and Havens, W. P. Focal Infection. *J.A.M.A.*, 114:2 (Jan. 6) 1940., per Bul. Chi. D. Soc.

PRINCE EDWARD ISLAND

Editor — M. H. GARVIN, Winnipeg

A S S O C I A T E E D I T O R S

SASKATCHEWAN

D. T. Waye, Charlottetown

QUEBEC

ONTARIO

F. C. Harwood, Moose Jaw

NOVA SCOTIA

E. M. Laurin, Montreal

T. R. Marshall, Toronto

ALBERTA

S. G. Ritchie, Halifax

MANITOBA

John Clay, Calgary

NEW BRUNSWICK

BRITISH COLUMBIA

J. F. Morrison, Winnipeg

Harry H. Peters, Saint John

J. S. Bricker, Vancouver

Ominous Days

With this issue of the Journal we complete Volume Six of our National Dental Publication. As an Association we have made progress, for no organization can remain static. We must grow and change from day to day or else disintegration takes place. In the face of a great national and world-wide crisis the members of the Canadian Dental Association have measured up to the responsibilities placed upon their shoulders. Many of them have enlisted for service, many have already gone overseas, the rest are ready to go when the call comes for defence of our institutions and our way of life which is so valuable to every one of us.

To the man of little faith these are indeed ominous days but to the one who looks Above for his support and direction these are but trials on the pathway to a more worthy life. This Britain which God has so marvellously used as a channel of blessing to the entire world will some day obtain a victorious peace, not merely granted by our Sovereign God but actually procured through His signal intervention.

In 1588 Spain ruled the world with the exception of Britain. The King of Spain decided to bring Britain within his gamut of influence and the great

Armada set forth. It was met by stalwart and determined Britons but it was the winds of God that completed its destruction. To commemorate the occasion Queen Elizabeth struck a medal on which was the following inscription, "Deus flavit, et dissipati sunt." "God blew and they were scattered."

Britain was left to resist tyranny in the days of Napoleon but Britain arose from her knees to victory over this almost world dictator.

Later the Kaiser sought to dominate the liberty loving people of the world. Britain fought and God came to her aid and all was well.

Today we are faced by a ruthless tyrant whose chief aim is to destroy freedom from the earth. All that we hold dear is at stake. As Lord Halifax said in reply to Hitler's peace proposals: "We want to worship God as we like and this religious freedom based on conscience, we will not let go, for conscience is not something you should hand over to anybody else. But in Germany the people have given their consciences to Hitler so that the people have become machines." No, we cannot accept the peace proposals of Hitler, based on slavery. It may be that dark days are ahead for all of us. We may still have to face a possible world problem of famine and pestilence and, also, the fourth horseman of the Apocalypse, the pale rider of death, but we are steeled for the trial; we shall continue to stand four-square against the forces of evil, seeing clearly the perils but also the splendour and the privilege of the task, knowing full well that evil such as this carries its own nemesis and knowing full well that our first and last line of defence is not in our magnificent army, not in our supreme navy, not in our superb air force —but in God. We wait with confidence the day of Victory when innocent blood will be avenged, when this hideous thing which has come from the pit is destroyed. May God in His mercy hasten the day.

The Day of Victory will bring many problems to all of us. We, as dentists, cannot escape and in the reconstruction that must follow the peace we will have many important problems with which to deal. It is time now to strengthen our National Association in every possible way and prepare as efficiently as possible to meet the many calls which will be made upon us as a learned profession. Let it be said that the dental profession has found its soul during the tragic months of the past year and that from now on we will march forward, shoulder to shoulder, to ever greater heights of achievement.

CORRESPONDENCE

To the Editor, Journal of the C.D.A.:

In reading the problem from Nova Scotia in the October issue of the Journal it occurred to me that the symptoms are typical of sodium perborate burns.

I have some patients who were "cured" of "Vincent's" by discontinuing the treatment.

H. B. Ness, Camrose, Alberta.

BOOK REVIEWS

The Science of Dental Materials — by Eugene W. Skinner, Ph.D., Associate Professor of Physics, Northwestern University Dental School. Second Edition, revised, 421 pages, 138 illustrations. Published by the W. B. Saunders Company, London & Philadelphia—1940. Canadian Agents: McAinsh & Co. Limited, Toronto. Cloth, $5.25.

In the preface of the first edition, the author states that his primary motive is to provide a text-book covering the science of dental materials. In the preface to the second edition, he states that some of the material has been revised and other material added, with the thought in mind of improving the text for teaching purposes and bringing the information up to date.

The book is divided into different chapters covering the various materials used in the practice of dentistry. Of particular interest to the student and graduate will be the chapters on Hydrocolloidal Impression Materials, Synthetic Resins and Acrylic Resins. The information pertaining to these materials is brought up to date but of course it may be anticipated that many changes will be made in these before the ideal one is found.

The different cements are discussed and particular attention given to the silicate cements, a complete chapter being devoted to the subject.

Several chapters are devoted to the discussion of the different metals and their alloys, particular attention being given to the wrought and casting golds and casting procedures in which various investments are discussed.

In fact, all materials used by the dentist in the practice of his profession are mentioned in this text-book. In addition to this, it has an appendix containing the specifications of the American Dental Association with reference to many dental materials.

The book is written in a very readable style and is recommended as a valuable text on this particular subject for either the student or graduate.—*Stephen A. Moore.*

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Canada Year Book, 1940. Published by authorization of the Hon. James A. MacKinnon, Minister of Trade and Commerce. May be obtained from the King's Printer, Ottawa, as long as the supply lasts, at the price of $1.50.

The Year Book gives a detailed account of Canada's war effort. It contains, also, a comprehensive study, within the limits of a single volume, of the social and economic condition of the Dominion, covering all phases of Canadian life.

The price merely covers the cost of paper, printing and binding.—*M. H. G.*

Conventions

77TH ANNUAL MIDWINTER MEETING OF THE CHICAGO DENTAL SOCIETY, STEVENS HOTEL, CHICAGO, FEBRUARY 17-20, 1941.

MINNESOTA STATE DENTAL ASSOCIATION, MINNEAPOLIS, MINN., FEBRUARY 25-27, 1941.

WESTERN CANADA DENTAL SOCIETY, EDMONTON, ALBERTA, ABOUT JUNE 1, 1941.

Officers of the British Navy when at sea remain seated while drinking the King's health. William IV served at sea as a naval officer before he came to the throne. He found that rising to drink the Sovereign's health meant bumping heads against the beams overhead. So when he became King he ordered that officers at sea were to remain seated while drinking the loyal toast. — Henry Ashbury in "Maclean's Magazine."

DENTAL CORPS NEWS

M.D. No. 10; Headquarters, Winnipeg, Manitoba

Among those taking an Officers' Training Course in the evening with a view to duty when required are the following dentists: Drs. O. Brown, W. I. Jackson, B. Oja, W. J. Robb, H. A. Allen, A. Diner, A. J. Gardner, L. N. Green, T. T. Kobrinksy, W. R. Parsons and E. D. Stinson, of Winnipeg; also Drs. W. B. MacDonald, Port Arthur; J. M. Spence, Fort William; E. C. Apps, Kenora; N. Helman, Rainy River; H. H. Smith, Shoal Lake; M. Ewart, Altona; A. M. Sutherland, Boissevain and B. B. Claman, Beausejour.

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No. 10 Company has six teams in its five pin bowling league which starts on November 6. In addition, there is one team in the City Military League.

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Recent dentists reporting for duty include Lts. A. J. Gardner, J. L. G. Carson, J. M. Grahame, B. B. Claman, J. M. Williams, T. T. Kobrinsky and J. M. C. Spence.

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Four detachments are being reposted to No. 5 Company at Quebec, and leave next week for duty there. The officers concerned are Capts. D. M. Boyd and W. R. Cunningham; and Lts. A. H. Bernstein and A. J. Gardner. November 1, 1940.

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M.D. No. 11, Headquarters, Victoria, B.C.

The nominal roll of officer personnel in No. 11 Co'y. C.D.C. is as follows: Major E. Fraser Allen; Capts. S. R. Mitchell, J. D. Johnson, C. M. French, C. B. Lundahl, H. E. Simmons. W. R. Louden, L. A. Day, G. A. MacBeth; Lieuts. C. B. Mess, A. S. Webster, A. H. Campbell, C. D. Helmer, F. M. Corbett, J. D. Calvert, M. J. T. Dohan, W. A. Nicholson, and L. K. Grady.

The following officers have already proceeded overseas: Capts. H. A. Simmons, J. G. Hamilton, F. A. Smith, and W. L. Osterhout.

It is impossible to get the Company together as they are stationed at different points in B.C. but the accompanying photographs, showing a number stationed in and around Victoria, were taken when there were more at one place than ever before.—E. Fraser Allen, Major, D.D.O., M.D. No. 11, O.C., No. 11 Coy., C.D.C., C.A.S.F.

No. 11 Company, C.D.C., C.A.S.F., Victoria, British Columbia, October 5, 1940.

No. 11 Company, C.D.C., C.A.S.F., Victoria, British Columbia, October 5, 1940.

FRONT ROW, *left to right:* Capts. J. D. Johnson, F. A. Smith, W. R. Louden; Major E. Fraser Allen; Capts. S. R. Mitchell, L. A. Day; Lieut. F. M. Corbett.

REAR ROW, *left to right:* Lieuts. M. J. T. Dohan, C. D. Helmer, A. S. Webster, W. A. Nicholson; Capt. W. L. Osterhout; Lieuts. J. D. Calvert, C. B. Mess.

M.D. No. 1; Headquarters, London, Ontario
Ladies Auxiliary

The ladies of the Auxiliary to the C.D.C. in M.D. No. 1 are rendering a wonderful service to the men in the Canadian Dental Corps in this District.

In June a very successful Garden Tea was held at the home of Dr. and Mrs. J. Frank Giffen. Two rummage sales were held later in the month. Cigarettes are sent regularly to the officers and men overseas and plans are being made for a home-cooking sale to aid in this work. The Auxiliary has sent twenty-three Christmas boxes, packed full of necessities and with plenty of good things to eat, to the men overseas.

The Auxiliary has also supplied curtains, window blinds, paper cups and many other articles which cannot be supplied by the Army, in order to help furnish the clinic.

With The C.A.S.F. in England

Capt. E. T. Bourke, of Montreal, now with the C.A.S.F. in England is quoted in a Montreal paper as saying that "The Dental problem is an endless one but that the majority of the bad teeth are being looked after and that it will contribute to making the men better soldiers as dental troubles reduce efficiency quickly."

Capt. Bourke further states that the specially-built equipment for field service has been thoroughly tested now and has proven satisfactory. The equipment is in two compact trunks which can be packed for a move in twenty minutes.

Two companies of the C.D.C., totalling about sixty dentists, now are working among units of the C.A.S.F. in England—*Montreal Star, Nov.* 12, 190.

"There are three sorts of intellect arranged in a sort of crescendo—that which absorbs light, that which reflects light, and that which emits light."

NEWS FROM THE PROVINCES

ONTARIO:

The Fourteenth Annual Meeting of the Great Lakes Association of Orthodontists

A program of exceptional merit marked the Fourteenth Annual Meeting of the Great Lakes Association of Orthodontists which convened at the Royal York Hotel, Toronto, Canada, Oct. 27-29, 1940.

Following the President's Reception on Sunday evening, Oct. 27, the members and their wives were guests of the Association at a buffet supper. Honorable, the Rev. H. J. Cody, L.L.D., President of the University of Toronto, extended the address of welcome to which President-elect, Frank Cartwright, Detroit, Mich. responded. Lieut.-Col. Harvey G. Bean then delivered his presidential address. An interesting Sunday evening innovation was enjoyed by a large number of the members and their wives when they were later guests of the Toronto ladies at a musicale.

At the scientific sessions which commenced promptly at 9.00 o'clock Monday morning and continued until Tuesday afternoon the following program was presented: "A Critical Re-examination of Certain Orthodontic Concepts," Allan G. Brodie, D.D.S., Ph.D., Chicago, Ill. "Myofunctional Treatment from a Practical Standpoint," Alfred P. Rogers, D.D.S., A.M., Boston, Mass.; "Malocclusion in a Group of Post-Rachitic and Non-Rachitic Adolescent Children," Bert G. Anderson, M.D., New Haven, Conn.; "Medico-dental Problems, Particularly Those Related to Certain Deficiencies," W. V. Watson, M.B., Toronto; "The Present Status of Vitamin Therapy," F. F. Tisdall, M.D., F.R.C.P. (C), Toronto; "The Dentition of The Dionne Quintuplets," Dean A. D. A. Mason, Faculty of Dentistry, Toronto; "Minimizing Traumatogenic Occlusion," C. H. M. Williams, D.D.S., B.Sc. (Dent.), Toronto; "The Maintenance of the Health of Oral Tissues," H. K. Box, D.D.S., Ph.D., Toronto. The third annual report upon cases either actively treated or under observation was made by eleven members of the Association. These men have undertaken to continue these progressive case reports each year until the occlusion in each case appears to be within the limits of normal.

The greetings of the American Association of Orthodontists were graciously tendered by President, Henry U. Barber, Jr., New York City, at the annual dinner on Monday evening. At this Function the members also enjoyed a Travelogue and Report of Dental Study on the Eskimos of Canadian Eastern Arctic by Charles H. M. Williams, D.D.S., B.Sc. (Dent.), Toronto. Dr. William's lecture was illustrated by colored motion pictures. It was decided to hold the next annual meeting of the Association at Ann Arbor, Mich.

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Registration in Faculty of Dentistry

The following is the Registration at the Faculty of Dentistry, University of Toronto, for the session 1940-41.

First Year	32
Second Year	56
Third Year	53
Fourth Year	39
Fifth Year	45
Occasional	3
Candidates for B.Sc. Dent.	4
Dental Nurses	17
TOTAL	249

The total number of undergraduate students registered in the Faculty of Dentistry for the present session is 16 less than for the session 1939-40. However in view of the fact that in this present session there are no graduates proceeding as undergraduate students from Australia and the British Isles and that in the session 1939-40 there were 18, the registration for the present session stands practically the same as for 1939-40.

War conditions have made it impossible for Australian or English students to leave the country with sufficient finances to carry on for a year which accounts for the fact that there are no men registered from these countries for the current session.

There are, however, two students registered whose homes are in India. Miss T. F. P. Canteenwalla, a graduate of Nair Hospital Dental College in Bombay, India, is registered in the fourth year. Her home is in Bombay. Dr. M. F. Ginwalla, a graduate of Nair Hospital, 1938 and also of McGill Faculty of

Dentistry, 1940, is registered in the B.Sc. Dent. Course. His home is Taratore's Bungalow, Ahmedabad, India.

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Faculty of Dentistry, Toronto

Dr. Hugh A. Hoskin, who for fourteen tears was House Master of South House, University of Toronto residence, has just resigned. Dr. Hoskin is Associate Professor of Dentistry in the Dental Faculty and has always been popular with the students. His resignation as House Master was recognized by a banquet in his honor, when he was presented with a gift from the boys of the South Residence.

Dr. S. M. Richardson has been promoted to Associate Professor in Radiography on the Faculty Staff.

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Dr. Morton Honoured

Dr. G. V. Morton has been elected President of the Toronto Curling Club. Congratulations, "Vic."

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Port Arthur Dental Clinic

A total of 67 school children were treated in the Gyro Free Dental Clinic of Port Arthur for underprivileged children in the school term 1939-40, at a cost to the Gyro Club of $560.50.

Dr. Conboy to Run for Mayor

Dr. F. J. Conboy has announced his intention of being a contestant for Mayor in the coming City of Toronto elections.

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Guest from Cleveland

Dr. William W. Hurst, Professor of Prosthetic Dentistry, School of Dentistry, Western Reserve University and a Past President of Cleveland Dental Society, was guest essayist to three Ontario dental groups in November. Dr. Hurst was a guest of London Dental Society on November 12th, Hamilton Dental Society on November 13th and the Toronto Academy of Dentistry on November 14th. His subject, "Immediate Denture Service," was well presented and well received everywhere he went. His lecture was illustrated by colored slides and 1200 feet of Kodachrome motion pictures.

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Congratulations to Dr. E. C. Young

Dr. E. C. Young of Class '18, University of Toronto, has been returned by acclamation to a third term as Mayor of Riverside, Ontario. This is surely an expression of appreciation on the part of the electors for public spirited devotion to duty. Good luck, Dr. Young.

Toronto and District Dental Golf Association Fall Tournament, Sept. 18/40 at Hamilton Golf and Country Club

PRIZE LIST

1ST FLIGHT—Low Gross—Dr. Alex Elliott Tray—Dr. L. Harris 80
Dr. M. Sheldon 86
(Toss won by Dr. Harris)
2nd Low Gross—Dr. J. M. Sheldon
Low Net—Dr. H. G. Armstrong 70
Dr. Smythe 70
(Toss won by Dr. Armstrong)
2nd Net—Dr. Smythe
Best Nine—Dr. J. D. Evans 37
Best Net 36 holes—Dr. McIntyre—"Dr. Gordon McLean Cup" 141
Best Net 18 holes—Spring or Fall—"Box Cup"—Dr. R. Bennett

2ND FLIGHT—Low Gross—Dr. C. T. Mason 90
2nd Gross—Dr. P. Lowrey 91
Low Net—Dr. W. R. Hendry
Best Nine—Dr. F. R. Rogers and Dr. Brooks

3RD FLIGHT—Low Gross—Dr. M. Ott 96
2nd Gross—Dr. Greenfield 104
Low Net—Dr. Paul 67
2nd Net—Dr. Fullerton 93

GUESTS —Low Gross—Mr. H. Tundelle 79
2nd Gross—Mr. W. Leek 81
Low Net—Dr. D. Jeffs
2nd Net—W. Leek and J. Burgault

BIRDIES —(2) Dr. Williamson
(1)—Drs. Crawford, Harris, Armstrong, Vivian, Sheldon, Brooks, Robertson, Coons, O'Neill.

The following were elected to office for 1941: President—Dr. L. Hipwell; Vice-President—Dr. C. T. Moyle; Sec.-Treas.—Dr. L. Harris.

Handicap Committee—Dr. G. Johnson; Dr. J. Evans; Dr. E. Jackson.

Canadian Oral Prophylactic Association

Dr. Leuman Waugh of Columbia University, New York City, will give a lecture in Toronto under the auspices of this Association in the Alexander Room of the King Edward Hotel, Toronto, on January 20th. Dr. Waugh will show still and motion pictures of his travels and work among the Eskimos. Members of the profession are cordially invited to attend this lecture.

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Dental Nurses' and Assistants' Association

CONGRATULATIONS TO NIAGARA DISTRICT—On Oct. 21 another new Chapter was added to the Ontario Association when the dental nurses and assistants of Niagara Falls, St. Catharines, Welland and Thorold, met together, and with the assistance of Iverna Rae, of Hamilton, Pres.-elect of Ontario, and Tomye Turner, of Toronto, Vice-pres. of Ontario, drew up the charter for the "NIAGARA DISTRICT DENTAL NURSES' & ASSISTANTS' ASSOCIATION."

Miss Mary French, of Niagara Falls, was chosen first President of the organization; Kay Mason, of St. Catharines, as Vice-President and Gertrude Doyle, of Thorold, as Secretary-treasurer. They will meet on the first Monday of each month, in the different cities, in turn; and we trust they will enjoy their friendship together.

Ontario extends congratulations and good wishes to this new chapter and looks forward to knowing the members better in the months to come.

MARION EDWARDS, *Publicity Convener.*

WINDSOR—The October meeting of the Essex-Kent County Dental Assistants was held on the 7th of the month in the Canada Bldg. with Vice-pres. Janet Hamel presiding; as Dorothy Scott, President, was unable to be present.

Final plans for the Annual Draw were made, the proceeds to be used for local war work. A combined meeting and party is planned for Oct. 21 in Leamington.

After the business session three papers were read and the clinics, which were given at the Ontario Convention, were shown for the members.

WINNIFRED GRIER, *Cor. Sec'y.*

LONDON—The first fall meeting of the London Chapter was held at the home of Miss Jane Wells, with fifteen members present. Miss Madeline McKay, President, took charge of the business session and gave her report of the Ontario Convention in Toronto. Loretta McCaughey gave a splendid account of the American Convention held recently in Cleveland, Ohio.

Doris McKenzie spoke on her trip to the west this summer, which proved most interesting and then refreshments were served by the hostess.

EILEEN GREEN, Secretary.

KITCHENER—The Kitchener Chapter held its regular monthly meeting Nov. 5 in the office of Dr. A. E. Brown, x-ray specialist. Following a short business meeting Dr. Brown spoke to the members on x-rays and his technique and answered several questions.

The meeting closed at 10 p.m. after a social half hour.

RUTH CLARK, Sec'y.

WINDSOR—The November meeting of the Windsor Chapter was held on the 4th in the Canada Bldg. Favorable reports were given on the progress of the sale of the Raffle tickets and the War Fund. The rest of the evening was spent in a round table discussion on "Office Management" with Mae Donaldson, Marion Brown and Hazel Lanzon as leaders.

WINNIFRED GRIER, *Cor. Sec'y.*

SUDBURY — YES — Ontario has another chapter. On Oct. 26. Iverna Rae, of Hamilton, and Tomye Turner, of Toronto, motored to Sudbury and helped to organize the dental nurses and assistants of that district. They had a very interesting meeting and chose Miss Dorothy Fowler as their first President. Jeanne Groulx, of North Bay, was elected Vice-President. Bernice Boyd, of Sudbury, is Secretary; and Mary Kennedy, of Copper-cliffe, is Treasurer.

Their meetings will be held the first Monday of each month and I am sure that all Ontario welcomes these new members and we say Good Luck to them. CONGRATULATIONS SUDBURY.

MARION EDWARDS, *Publicity Convener.*

Dental Nurses' Alumnae Association of Canada

A record number attended the annual Mother and Daughter Banquet of the Dental Nurses' Alumnae Association held November 12 at Diana Sweets.

After honoring the King the alumnae members and guests were entertained by Mrs. Sharman, guest soloist, with Mrs. Gibson at the piano.

Realistic moving pictures of the Russo-Finnish War, the Sinking of the Graf Spee and Royal Tour movies in color, as presented to the King and Queen, were shown by Dr. Frank Martin. Miss Edith Nattress introduced Dr. Martin to the gathering and Miss Marjorie Joyner presented a vote of thanks.

QUEBEC:

Montreal Dental Club

A general meeting of the Montreal Dental Club was held in its club room, October 28, with Captain Kent in the chair. The speaker was Dr. Victor Pinard who was graduated from the Faculty of Dentistry, Toronto University, in 1913. Dr. Pinard practised in Paris for twenty-one years, but owing to the present war was fortunate in fleeing from France with his wife and child. Dr. Pinard is now practising in Ottawa, Ontario. He addressed the Club on "Reminiscences of Twenty-one Years' Practice in Paris."

Dr. Pinard very ably traced the developments of dentistry from the days of Fauchard, Bourdet, Bunon, Moutone, Chement, etc., to the present day and stated that although France had lost its leadership to this continent in the past hundred years it still had some very excellent dentists and a few good dental schools. Dr. Pinard mentioned the names of many of the leading dentists of Paris who were still there or who had the good fortune to leave before the occupation of Paris by the Huns.

In the second part of his lecture, he told the meeting of his departure from Paris and finally, France; of the difficulties, disappointments and heartaches. He paid very high tribute to the British Navy and the people of England, who received them, clothed and fed them. One of the events that appealed to Dr. Pinard most was his arrival in Halifax. He said, "You know we were accustomed to the black-outs in Paris and in England but when approaching Halifax, we could not believe our eyes as we saw lights, thousands of them; it was the Port of Halifax, and once more we felt secure in a land of freedom and plenty."

A vote of thanks by Captain Lorne McRae, which was seconded by Captain Rodger McMahon, was extended to Dr. Pinard, after which light refreshments were served.

NOVA SCOTIA:

Halifax Dental Society

The Halifax Dental Society held its annual meeting October 17 at the Nova Scotian Hotel. The following officers were elected for the ensuing year:

President, Dr. W. C. Oxner.
Vice-president, Dr. A. W. Faulkner.
Secretary-treasurer, Dr. J. P. McCuigan.
Property Officer, Dr. G. A. Chudleigh.
Member of Executive, Dr. H. M. Eaton.
Auditors, Drs. G. A. Chudleigh and G. R. Henniger.

—*Halifax Herald.*

BRITISH COLUMBIA:

Vancouver Dental Society

The Vancouver Dental Society extended an invitation to the Vancouver Medical Association to attend its regular monthly meeting to hear Dr. R. E. Ramaker, Seattle, Washington, on "The Prevention and Correction of Common Oral and Nasal Deformities During Infancy." A large number attended.

Dr. Ramaker, who has made an extensive study of the causes and effects of malformed arches and nasal septums for many years and showed, by means of slides the birth of the child and how these deformities were caused by the pressure on the soft plastic tissues of the jaws, nasal and bones of the face, by the pubic bones or by the use of surgical instrumentation. He showed also the procedure of reforming the arches and nasal septum. In the case of a Gasserian Operation it was found that these deformities do not occur but that all the facial bones are in their normal position and shape.

During the afternoon Dr. Ramaker displayed an extensive collection of models deal-

ing with the "Correction of Facial Deformities Immediately Following Birth." These models, in cases comprised models of the infant's mouth at birth, as well as models taken at different stages of life showing the deciduous teeth, six years and twelve; also the models of the parents' mouths for comparison. This was only a small part of this wonderful clinic that was well attended by both professions as well as nurses.

Great stress was placed on breast feeding of the child as long as possible and the great harm that is being done by the use of non orthopedic teats which flood the market.

Dr. Howard Spohn, pediatrician. Dr. Walter Paton, eye, ear and nose specialist discussed the paper, while Dr. Wm. Lea. orthodontist spoke for the dentists. The point that delivery caused more malformations than heredity was clearly proven.

Reports were given by the Diagnosis, Prosthetic and Operative Clubs showing great activity by these clubs. The Vancouver Ferrier Gold Foil Club has begun its regular half day a month series of meetings, with chair operations.

Dr. Harold Cline, British Columbia representative to The Pacific Coast Conference attended the first general session of the councillors at Portland, Oregon. The meeting will be held in Portland, July 1941.

ALBERTA:

Western Canada Dental Society

On November 4, the Executive of the Western Canada Dental Association met in Edmonton to discuss the advisability of holding a Convention this year. After consultation with the representatives of the Edmonton Dental Society, a meeting was decided on, to be held about the first week in June. The offer of the Edmonton Dental Society to act as hosts for the convention was accepted, and the facilities of the Dental Department of the University of Alberta will be at the disposal of the meeting.

Dr. Victor Lloyd, of Edmonton, was appointed General Chairman for the meeting.

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Edmonton Dental Society

The members of the Executive of the Western Canada Dental Society were the guests of the Edmonton Dental Society at a dinner at the Macdonald Hotel following their meeting. A discussion of their decision and plans for the June meeting took place.

Dr. Ross Vant, specialist in obstetrics at the University of Alberta, gave a very informative talk on "Diet and Dental Care of the Pregnant Woman."

During his remarks Dr. Vant made the statement that canning whole tomatoes retained the vitamin value of the product, but canned tomato juice, because of the exposure to air, retained only a small portion of the vitamin value of the original tomatoes. He also stated that the same loss of vitamin value occurred with the citrus fruits, for the same reason.

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The Society met at the Macdonald Hotel on October 1, with Dr. V. M. Lloyd in the chair.

The guest speaker was Dr. A. E. Bowstead, of the University of Alberta. Dr. Bowstead just returned from Europe where he had spent the last two years, and gave an interesting description of conditions there and of his escape from Germany just before war was declared.

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Calgary Dental Society

The Calgary Dental Society held its first meeting of the year on October 21, at the Renfrew Club.

Due to the enlistment of Dr. Spencer Lee in the Canadian Dental Corps, Dr. A. A. Holliss was appointed Secretary-treasurer in his stead.

The officers of the Dental Corps stationed in Calgary and Lieutenant-Colonel Janes, the O.C. for Military District No. 13, were the guests of the society for the evening.

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Promotion

Recently Major L. V. Janes, Officer Commanding Canadian Dental Corps for Military District No. 13, received well deserved promotion to the rank of Lieutenant-Colonel.

Through an error, in the March 1940 Canadian Dental Journal, it was stated that Lieutenant-Colonel Janes was a graduate from the Royal College of Dental Surgeons in 1914. Lt.-Colonel Janes graduated from the Chicago College of Dental Surgery in that year.

SASKATCHEWAN:

Dr. Thomson Visits Saskatchewan

Dr. Harry Thomson, Field Secretary of the Canadian Dental Hygiene Council, spent three weeks in Saskatchewan during October and November. Dr. Thomson, at the request of the Minister of Health of the Province, gave a series of lectures on Oral Hygiene to the students of the three provincial normal schools. By special request of the same official, he also gave numerous addresses to the students in the collegiates, technical schools and public and separate schools of Regina, Saskatoon and Moose Jaw. In addition to the above busy program, which was very enthusiastically received, addresses were given before the Rotary, Kiwanis and Lions Clubs in the three cities, where Dr. Thomson was very popular.

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Saskatchewan Hospital Association

Dr. A. E. Chegwin, Moose Jaw, an Alderman of the City and Chairman of the Moose Jaw General Hospital Board, presented a paper entitled, "Co-operation between the Hospital Board of Governors and the Staff," at the Convention of the Saskatchewan Hospital Association held in Regina, October 11-12.

MANITOBA:

Winnipeg Dental Society

In recent weeks the Winnipeg Dental Society has been addressed by two of our American "Cousins." Dr. L. I. Gilbert, of Fargo, N.D., appeared before the October meeting with an interesting paper illustrated with slides and a model table clinic on "The Modern Concept and Consideration of Periodontal Problems." His ideas were well received and it is hoped that he will come again.

Dr. Boyd Gardner, of the Mayo Clinic, was the November guest speaker. Dr. Gardner has visited the Society several times and it is always a real pleasure and inspiration to have him. It is particularly interesting to those of us who have heard his addresses for the past twenty years to observe the trend in dental theory over the two decades. When he first came to Winnipeg to speak to the Society every suspect tooth was condemned without trial, merely on suspicion, to the lethal chamber. Nine years ago "How to build sound teeth, by the use of adequate diet" had the center of the stage and Dr. Gardner gave us a very informative paper, illustrated by slides on that subject. His address this time was on "Diagnosis and Surgical Problems in Every Day Practice." This talk was also illustrated with slides, some of which showed permanent teeth with deep-seated remnants of deciduous root tips too close to the teeth to justify an operation to remove the tips. Experience has indicated that unless a bone involvement is suspected these remnants are still alive and harmless. Thus a surgical problem is avoided by correct diagnosis.

An interesting feature of the November meeting was a table reserved for twenty officers of the Canadian Dental Corps on duty in this Military District, including Lt.-Col. W. W. Wright, O.C. No. 10 Detachment, and Major C. W. Steele, O.C. No. 2 Air Command Detachment of the Dental Corps. There was a record attendance and adieus and best wishes of all present were offered to Captains S. E. Greenberg and G. E. Shragge who expected to leave soon for duty in eastern Canada. Dr. B. E. Toombs, the 1940-41 president of the Society, presided.

EMPIRE NEWS

GREAT BRITAIN:

A Fortnight of Blitzkrieg

Another fortnight of Blitzkrieg has been hurtled upon London; we can look with pride upon the manner in which the greatest city in the world has adapted itself to the daily and nightly wail of the sirens. The motto, "Business as usual," has been fulfilled to an extent that seemed very improbable on the first Saturday afternoon, when the breakthrough occurred. The major part of the credit for this must be given to the amazing tenacity of the people, a spirit that has be-

come increasingly more formidable as time has gone on.

The full weight of the effect of the Blitzkrieg upon the health of the people has yet to be felt. The unusually long and sunny weather has mitigated the evils of hardship and exposure. The organization for the reception, treatment and evacuation of actual air-raid casualties has worked very efficiently; when one hospital has been put temporarily out of action, others in the district have been able to take over its work, until it is running again. The treatment and disposal of civilian sick in London this winter may well prove an equal or greater burden. In the first place, already many aged and infirm have been received into hospitals, some with heart failure or bronchitis, others for no medical reason at all; they have lost their resiliency, the nightly adventure to public or private shelter is beyond their powers of endurance. The chronic arthritics similarly, who have been looked after and carefully tended at home by their relatives, become hospital cases again, when their home is demolished, for they are difficult to manage in a school or other temporary centre. Many of these, after two or three days and nights of rest, are so rejuvenated that they wish to go out into the fray and rebuild their scattered homes; others, however, will require institutional treatment throughout the winter. The diabetics are another problem; the results of a day or two with no regular diet or insulin may necessitate several weeks before stabilization is again secured, or may even precipitate coma. The home treatment of peptic ulcer is greatly obstructed by the lack of rest and the state of general anxiety; haematemesis certainly appears to be a commoner event now than in former days. This list could be magnified; the number of out-patients who will require in-patient treatment for longer or shorter periods may well be considerable. Admission and rapid evacuation to base hospitals, or to institutions in the country where appropriate, is the only solution to this problem.

Secondly, the winter is approaching; the effects of rapid transmission from warm rooms to cold damp air, thence to stuffy shelter and back, upon the general health of the community cannot be estimated; the aged will certainly suffer greatly. A commission of enquiry has already been set up upon the questions of ventilation, sanitation and general hygiene in the large public shelters. However much these be improved, the effect upon the incidence and rate of spread of acute infections and of the specific fevers cannot yet be estimated. With the lack of facilities for the home treatment of even simple bronchitis, the hospital admission rates will certainly be greatly increased; rapid evacuation will again be necessary to maintain the adequate reserve of beds for air-raid casualties.

The chief problem which assails us is the maintenance of our high standard as a teaching hospital and the provision of ample illustrative clinical material. Fortunately, the difficulties are not insurmountable, and by means of distribution of the students throughout the Sector, an adequate curriculum has been maintained for them.

—*Guy's Hospital Gazette, October* 5, 1940.

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Incendiary Bombs on Headquarters

The British Dental Association has now had a taste of what other parts of London have experienced since the enemy turned his attention to the capital. The fire caused by an incendiary bomb on the roof of Headquarters has done no little damage. We are glad to say that the part which escaped without so much as a wetting is the Library. —*Br. D. Journal.*

INDIA:

Nair Hospital Dental College

According to the annual report of the Nair Hospital Dental College there were 42 regular students in attendance in 1939-40. There is a teaching staff of 28 and last year 10,260 patients were treated, being composed of 4,918 Hindus, 2,942 Christians, 603 Parsis, 1,566 Mohammedans and 231 Jews.

The College is affiliated with the College of Physicians and Surgeons and is recognized to train students for the L.D.S.C.P.S. diploma course.

GENERAL NEWS

Dental Care for Children

Seventy-five per cent of the children in the United States receive no dental care in spite of universal need, according to Dr. Frank C. Cady, senior dental surgeon in the United States Health Service, who spoke before the centennial convention of the American Dental Association in Cleveland.

Basing his figures on recent dental health surveys made by federal, state and community agencies, Dr. Cady told the convention section on children's dentistry and oral hygiene:

"In a majority of communities it will be found that around 25 per cent of the children are going to a dentist, another 25 per cent are indigent and can't go, and the remaining 50 per cent can go but will not go."

The major problem in the case of the half whose parents are financially able to have their children's teeth cared for yet neglect them, Dr. Cady said, is one of education; and education must be primary in any public dental health program.

"While a complete treatment program for the dentally indigent is spectacular," he added, "and follows the line of least resistance from the standpoint of the community as a whole, it cannot be considered successful since only about a fourth of the children are receiving adequate treatment."

Study of the various reports on public dental health programs available to the United States Health Service, and the experience of the various agencies show that such programs up to now have been too diffuse and, on a geographic scale, over-ambitious, Dr. Cady said.

"In some states," he said, "the active time of the dental personnel has been spent in flooding the whole state with literature and by short and infrequent visits to the hundreds of communities. Such a program of necessity must be spread very thin: so thin in fact that in most instances nothing of a permanent nature has been accomplished."

The new approach to the public dental health problem, already innovated on a small scale, Dr. Cady indicated, is to concentrate within a single community until definite and tangible progress has been made, before moving the personnel units on to another community.

"At the moment," he said, "fortunately there is a movement in some states to reorient the programs and direct them toward the organization of definite activities on the community level. There is evidence of dental personnel selecting a certain county or community and continuing the work there until a definite project has been organized and in operation, one so well established that it will not fall apart when the stimulus is removed."

This method, Dr. Cady stated, though slower and less sensational than the "statewide" method, has proved to be "the most practical and permanent solution in similar fields of public health practice."

Dr. Cady stressed the need for co-ordination of such community programs, and for education for the key groups within the community, civic organizations, clubs, parent teacher associations, upon whom the stability of the program depends.

He pointed out that present dental health programs often tend to concentrate on a single group—school-age children, for example—to the exclusion and neglect of other groups.

"In the school health education program," Dr. Cady said, "there is also an inclination to give too much time and study to the individual need and not enough to the service potentialities and social organizations of the community. The school by itself cannot successfully carry on a general health education program. There must be co-ordination of all community resources.

"Since the real aim of a dental program is the prevention of the early loss of teeth—deciduous and permanent—it follows that any effective control program in dentistry implies that remedial care for all groups is being accomplished as the result largely of a successful program for all groups involved."

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Chicago Dental Society

A special meeting of the Board of Directors of the Chicago Dental Society, devoted largely to consideration of the report of the Public Relations Commission, was held on October 26.

The Educational Division of the Public Relations Commission, Dr. Lon W. Morrey,

chairman, made the following proposals, which were accepted:

(a) A course of instruction in dental health to be given the student nurses of each recognized hospital of the Chicago area.

(b) Lecture courses in dental health to students of the Chicago Normal School.

(c) Purchase of a sound motion picture projector.

(d) Purchase of two dental health educational films.

(e) Co-operate to the fullest extent with the Chicago Board of Education in their expanded school dental program.

The Radio Division of the Commission suggested that the Bureau of Public Relations of the American Dental Association and the Radio Division of the Chicago Dental Society co-operate in making copies for use by other dental organizations. Details of this plan will be submitted later.

The Commission also asked for an appropriation to "spot-check" its radio audience.

The Public Speaking Division recommended that a full-time educational director be assigned to fill speaking engagements. If such a director cannot be employed, then a corps of dentists should be trained in public speaking to carry out this activity.—*Bul. of the Chi. D. Soc., No.* 15, 1940.

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Midwinter Clinic of Chicago Dental Society

Shortly after January 1 the Preliminary Program of the Chicago Dental Society's 1941 Midwinter Meeting, to be held at the Stevens Hotel, February 17-20, inclusive, will be in the mails. Canadian dentists may secure a copy by addressing the Chicago Dental Society, 30 North Michigan Avenue, Chicago, Illinois.

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Society Members to Save Thousands Annually Because of New Sales Tax Ruling

Many Dental Items Are Now Tax Free Because of Decision Obtained by Society Committee and Dental Dealers

Chicago Dental Society members will save more than $50,000 annually as a result of a recent decision of the Department of Finance of the State of Illinois exempting certain dental materials from the Retailers' Occupational Tax Act, popularly known as the Sales Tax. It has been estimated that the average dentist will save approximately $16.00 per year. —*Bul. of Chi. D. Soc.*

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Callahan Memorial Award

Dr. Arthur H. Merritt, of New York, was the recipient of the Callahan Memorial Award at the 79th Annual Meeting of the Ohio State Dental Society, held in Cincinnati, Ohio, November 25-27, 1940.

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The Distribution of Dentists in New York State, 1938

During recent months the New York State Department of Health through the Division of Maternity, Infancy and Child Hygiene which directs the oral hygiene program of the State has received frequent requests for information regarding the distribution of dentists in New York State (exclusive of New York City). Since many individuals and organizations might find such information of value, it was decided to make this information readily available.

The total number of dentists in New York State in 1938 was 10,970 of which 7,620 or 69 per cent were practicing in New York City and the remaining 3,350 or 31 per cent in the rest of New York State. In the former area there were 983 persons per dentist while in the remainder of the State there were 1,787 persons per dentist. The corresponding number of persons per physician for 1938 was 497 for New York City and 720 for the rest of the State. — *N. Y. State Dept. of Health, per A.D.A. Release.*

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Free Laboratory Diagnostic Service

A limited laboratory service in the diagnosis of cancer is now available from the state Department of Public Health to the physicians and dentists of Illinois, U.S.A. Biopsy specimens taken from poor patients will be accepted and examined free at the Department's diagnostic laboratories. Physicians and dentists are invited to take advantage of this service in the interest of early diagnosis and subsequent treatment of patients with cancer. Specimens taken from patients who are able to pay for such service should be sent to privately operated pathological laboratories.—*Illinois Health Messenger; per A.D.A. Release.*

The American Dental Trade Association Dealers' Section Convention

The twenty-sixth Annual Meeting of the Dealers' Section of the American Dental Trade Association was held at the Royal York Hotel, Toronto, on November 13th, 14th and 15th, with approximately 250 Dental Dealers and Manufacturers present.

Colonel Frank M. Lott, Director of Dental Services for Canada, gave a most interesting address on the organization and work of the Canadian Dental Corps. Much interest was shown in the complete Dental Corps' kits which Colonel Lott brought with him.

Dr. Thos. B. McCrum's new sound motion picture, "Dentistry—a Career" was shown. This picture which has the approval of the A.D.A., was produced to encourage young men to enter dentistry as a professional career.

Dr. Lon W. Morrey, Supervisor of Public Relations, of the American Dental Association in a talk entitled "We'll tell the World about Dentistry," told of the educational activities that the A.D.A. was carrying on with the general public and explained the type of material available through their Bureau.

"A Philosophy for Successful Living" was the title of an illustrated address on dental economics by Dr. George Wood Clapp. An "Information Please" program brought out much useful and interesting information concerning the dental trade.

One of the "high lights" of the convention was the dinner given on Wednesday evening to all in attendance at the convention, by the Ontario Dental Association—Dr. E. A. Grant, who presided, extended greetings from the Ontario Dental Association, Dean Mason on behalf of the Faculty of Dentistry, Dr. E. T. Guest on behalf of the Academy of Dentistry, Toronto and Dr. F. J. Conboy, Acting Mayor, on behalf of the City of Toronto. The Hon. Dr. H. J. Cody, President of The University of Toronto, gave an eloquent address, stressing the great benefits derived by the people of the United States and Canada from common ideals and common language.

On Thursday evening during an "Olde English" dinner, featuring the "Beefeaters" and English music, George Holden of Providence, R.I. suggested that a collection for the Canadian Red Cross be taken up to show the visitors appreciation for the hospitality extended to them. Over $1,600.00 was immediately subscribed.

This, the second meeting to be held in Canada, was one of the best attended and most inspirational conventions ever held by this organization. An American member of the association in a letter to Lt. Col. Alexander, expressed his feelings as follows—"The indomitable spirit of our Canadian friends with respect to the war, which was so much in evidence during our stay in Toronto, impressed me very deeply. I feel that I came away from Toronto a better man and with a greater appreciation for our Canadian and British brothers."

The success of the meeting was due in no small part to the enthusiastic efforts of the local committee. Lt. Col. Norman Alexander of Dominion Dental Company was the General Chairman of the dealer section of the American Dental Trades Association. Mr. W. M. McTavish of National Refining Co., is President of the Canadian Dental Trades Association. Mr. H. P. Temple of Ash Temple Co., Mr. C. A. McKenna of S. S. White Co., Mr. M. E. Bower of Dental Company of Canada, acted as Entertainment Committee with Mr. Temple as Chairman.

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Tooth Etching

A battery repair man of one year's service reported at the clinic that he had been advised by his dentist that the enamel of his incisor teeth was being destroyed by the fumes present in the battery room.

Examination revealed that all buccal surfaces of the incisors not in contact with the lips during ordinary conversation, presented an etched or ground-glass appearance. In fact, the cutting edge of these exposed teeth had been so eroded that the dentine was exposed and had become darkened. Examination of this man's saliva revealed a pH of 6.1. A fellow employee with etched teeth showed a pH of 5.4 in the saliva.

About 20 per cent of the employees in the repair division were found to exhibit more or less etching of the incisor teeth.

Although these cases were not considered as industrial accidents by the insurance carrier, an industrial accident board awarded lump-

sum payments for the porcelain jacketing of affected teeth.—*New England Journal of Medicine: per A.D.A. Release.*

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Pay-Your-Doctor Week

"Pay-Your-Doctor Week," inaugurated two years ago by a California Bank in Los Angeles on a purely local basis was observed this year from October 27 to November 2 in scores of cities throughout the country, with banks in the various communities sponsoring the movement.

Because "Pay-Your-Doctor Week" was originated by a bank without the assistance of the medical profession, no question of ethics is involved and the movement has been hailed with favour by members of the medical fraternity everywhere. Banks who sponsor "Pay-Your-Doctor Week" in various cities throughout the country publicize the idea widely, using newspaper advertisements, bill boards, car cards and the like to call attention to the occasion and to the fact that banks have on hand funds to lend for the excellent purpose of paying doctor bills.—*N. Y. Jour. of D.*

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Indium in Dentistry

Indium, a relatively rare metal, is finding important use in dental alloys and amalgams which it makes stronger and more resistant to tarnish. It also is used to increase the corrosion resistance of silver and certain types of bearings. Increased production has lately reduced the price of pure indium from $75 an ounce to $15 an ounce, and this is expected to increase its usefulness. — *Rotarian, Oct., 1940; per A.D.A. Release.*

IN MEMORIAM

The members of the Canadian Dental Association extend their heartfelt sympathy to the bereaved relatives of the deceased referred to in this Section of the Journal.

"The surest pledge of a deathless name
Is the silent homage of thoughts unspoken."

Darrell Epworth Staton, of Toronto, Ontario, aged 42 years, died October 26 from a sudden heart seizure at Otter Lake Ontario, where he was spending a week-end.

Dr. Staton was graduated from Faculty of Dentistry, University of Toronto, in 1925. He began practice in Bancroft, later coming home to Toronto. He served overseas in the Great War of 1914-18 with the Canadian artillery. He was a past president of Toronto East Dental Society and a member of Hope United Church.

He is survived by his widow, his father, one brother, R. A. Staton, Jr., and two sisters, Mrs. J. A. McGeachie and Mrs. William Jupp, all of Toronto.

•

Robert Charles Bain, of Prince Albert, Saskatchewan, aged 63, died in the Saskatoon Hospital on October 23. He was graduated from the University of Toronto and took a post-graduate year in Philadelphia. He practised in Prince Albert for thirty-two years and in Grenfell for five years previously.

All his life he maintained an interest in sport and in latter years was an ardent and proficient golfer. He was an outstanding figure in the professional and business life of the city. He was a member of the Presbyterian Church, a life member of Prince Albert Lodge No. 63, A.F. & A.M. and a chartered member of the Keewatin Club.

Dr. Bain is survived by his widow, one daughter, one sister and two brothers.

•

Juliette A. Southard, Founder of the American Dental Assistants' Association, died suddenly while attending the Florida State Dental Assistants' Banquet at St. Petersburg.

The dental assistants of the continent have lost a wise counsellor and a beloved friend who gave many years to raising the status of the dental assistant.

. . . SECTION FRANÇAISE . . .

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Editorial

L'année qui dans quelques jours va se terminer fut si sombre, si laide, si terrible, que c'est à peine si nous osons nous retourner pour y jeter un oeil. Or, nous sommes arrivés à l'époque où selon la coutume, nous échangeons les souhaits les plus chaleureux de bonheur et de prospérité, et voici que de tous côtés on nous promet que 1941 sera peut-être plus dure encore.

Imaginez la situation d'un rédacteur qui dans de telles circonstances se voit obligé, au nom du journal, de souhaiter aux lecteurs quelques chose de meilleur pour l'avenir! Pourtant si je songe aux confrères de tous les pays qui subissent la tourmente, il me semble que ma tâche n'est pas tout à fait impossible.

En effet nous sommes en meilleure posture et notre sort peut encore s'améliorer pourvu que nous nous en donnions la peine. A tous ceux des nôtres qui sont plus ou moins abattus, démoralisés, souhaitons qu'ils trouvent autour d'eux des raisons d'espérer, de relever leur courage. Si nos activités d'autrefois ne suffisent plus à nous rendre la vie agréable, trouvons-en d'autres qui nous donneront le contentement de l'esprit et du coeur. La nécessité de faire le bien sera plus impérieuse que jamais et quiconque lui obéit n'est jamais privé de toute satisfaction.

Souhaitons qu'à la grande surprise des pessimistes la guerre s'achève le plus tôt possible et selon la volonté de la Divine Providence.

ALCIDE THIBAUDEAU.

Danger des obturations dites de porcelaines synthétiques

par ALCIDE THIBAUDEAU, D.D.S., A.I.D.O.
Professeur titulaire de la chaire d'anatomie et de physiologie dentaires de l'Université de Montréal

Dans une récente communication, j'ai dit qu'il faudrait revenir sur ce sujet des synthétiques, ou porcelaines artificielles.

En effet, c'est une nécessité, car les dégats causés par ce genre d'obturations sont innombrables. Depuis 1927, j'ai traité par l'ionisation près de 700 cas de dents abcédées. Je n'ai pas fait de calculs particuliers sur les causes probables de ces accidents, mais je puis sans me tromper, affirmer qu'au moins 60% de ces cas d'infection avaient pour origine une obturation en ce qu'on appelle communément et à tort: porcelaine artificielle. Presque toutes ces obturations remontaient à deux ans en moyenne. Presque toutes ont eu la même histoire.

Ne serait-il pas temps d'oser nous poser publiquement un certain nombre de questions à ce sujet, même si les réponses allaient déplaire à quelques-uns et contredire certains enseignements.

Pourquoi tant d'abcès dus à ces obturations?

Chaque lecteur a déjà répondu par expérience: C'est parce que dans un grand nombre de cas ils causent la mort de la pulpe. N'accusons pas le manque d'aseptie de l'opérateur ou des substances qui entrent dans la composition de ces ciments. Je ne crois pas nécessaire de prouver cette proposition. Si à l'ouverture d'une telle dent nous trouvons l'infection, c'est qu'elle est venue par voie sanguine et qu'elle a trouvé dans ce canal une pulpe morte dégénérée et propre à son développement.

Alors comment les synthétiques ou procelaines causent-ils la dévitalisation?

Question délicate où une réponse catégorique risquerait fort d'être dans l'erreur. D'ailleurs la solution du problème ne serait pas trouvée.

Arsenic. On a affirmé que le mélange contient des traces d'arsenic. Je n'ai pas eu l'opportunité de confirmer ou d'infirmer cette prétention par des expériences de laboratoire. En admettant même qu'il y eut des traces d'arsenic, n'y aurait-il pas lieu de croire que ce poison n'aurait ni le pouvoir ni le temps de dévitaliser une pulpe. L'infime quantité d'arsenic qui pourrait se dégager d'une telle obturation, serait-elle suffisante pour causer le mort d'un organe aussi vasculaire. Ne serait-elle pas plutôt absorbée et perdue dans l'organisme où cette substance existe déjà? D'ailleurs dans une bouteille de poudre on admet que des traces, et ce n'est pas certain; quelle quantité donc d'arsenic faudra-t-il imaginer dans la toute petite portion utilisée pour une obturation. Il semble bien que la théorie devienne invraisemblable. De plus il ne faut pas oublier que pour dévitaliser une pulpe cette infinitésimale particule puisse se dégager de la pâte avant que la cristallisation ne soit terminée. Après, si elle n'est en contact direct avec la dentine, elle restera emprisonnée dans la masse. Pour ma part je suis bien tenté de croire que cette théorie de l'arsenic ne tient plus. Il faut donc chercher ailleurs et croire que plusieurs causes peuvent avoir le même résultat.

Est-on bien certain que l'acide phosphorique du ciment a été parfaitement neutralisé par les poudres et qu'il n'en reste pas en liberté. Si tel était le cas, on sait que cet acide puissamment hydrophile pourrait bien se mêler aux liquides des canalicules de Tomes et causer la mort de la pulpe par irritation lente et constante.

Profondeur de la cavité

Un des facteurs les plus importants dans la dévitalisation des dents est bien la profondeur de la cavité par rapport à l'âge ou au degré de calcification de la dent.

En effet avant la 11ème ou la 12ème année, l'emploi des silicates est formellement contre-indiqué. La calcification avant cette époque n'a pas encore atteint un degré suffisant de densité pour résister au danger. Les canalicules de Tomes sont trop larges, la couche granuleuse est en relation trop directe avec une pulpe encore trop grosse. L'épaisseur de la dentine ne permet pas une préparation convenable.

L'âge n'est pas le seul guide. Le développement du sujet peut faire soupçonner une calcification incomplète chez ceux qui ont même passé la 20ème année. Il m'est arrivé d'en trouver plusieurs dans ce cas. Une bonne radiographie devient donc indispensable quand on a le moindre soupçon.

Chez les sujets dont la calcification est normale, la profondeur de la cavité devient elle-même d'une importance capitale. Si elle atteint un tel degré que la couche de dentine qui protège la pulpe est très mince les agents mortifiants pourront plus facilement la menacer. Et surtout, il faut se rappeler que la pâte dont on remplit la cavité est fortement comprimée par la bandelette de celluloïde. La pression fait fléchir la paroi pulpaire qui à son tour écrase la pulpe et la fait mourir. Nous verrons plus loin ce qu'on doit penser des fonds et des coiffages protecteurs.

Est-il possible, à un opérateur habile, d'employer les silicates ou porcelaines synthétiques *sans danger?*

Après vingt-cinq ans de pratique je crois pouvoir répondre: oui dans certains cas particulièrement favorables. Dans les autres, non.

Evidemment si la calcification de la dent est d'une densité particulièrement bonne, si la paroi pulpaire est très résistante et le sujet vigoureux, il y a tout lieu de croire qu'un bon opérateur peut arriver à un succès satisfaisant, mais dans la majorité des cas ce sera très difficile si non impossible. En tous cas, si après une obturation de ce genre on est bien satisfait de son apparence, il ne faut pas s'en tenir là. Le patient doit être averti de revenir à la moindre sensation de douleur, au froid ou à la percussion. C'est un signe infaillible d'intolérance. Il faut enlever cette obturation et la remplacer par un pansement sédatif. Dire au patient que cela passera, est une erreur. Quand le mal disparaîtra la dent sera morte.

En étudiant attentivement l'anatomie de la dent et les divers mouvements de l'opération, on comprendra facilement la probabilité de cette assertion.

Dans la figure A on peut constater que la dentine qui protège la pulpe n'est pas beaucoup plus épaisse que la couche d'émail. Or, pour qu'une cavité soit convenablement préparée, il faut que sa profondeur dans la dentine atteigne au moins la longueur d'un bâtonnet d'émail et ce n'est pas exagéré. Au fond de la cavité, il y aura les canalicules et entre l'émail et la dentine sur les parois latérales et à mi-profondeur, on aura la couche granuleuse de Tomes. Or, qui n'a pas noté la sensibilité particulière de ce joint énamo-dentinaire? Il faut donc songer tout de suite que c'est la partie de la dent qu'il faut protéger davantage contre les effets nocifs des silicates. Et c'est justement aussi une opération d'une telle délicatesse, qu'elle est quasi impraticable dans bien des cas. Si on applique sur le fond de la cavité un vernis ou un oxyphosphate qui ne recouvrira pas totalement la couche de Tomes, le but ne sera pas atteint et la dent mourra. Si le vernis recouvre bien la couche de Tomes comme la théorie le voudrait, il atteindra aussi l'angle cavo-périphérique et bientôt l'obturation s'entourera d'un liséré noir qui en plus de manquer d'esthétique se dissolvra et amènera de la récidive. Il faudrait pour que la protection soit parfaite que le vernis recouvre tout le fond de la cavité et les parois latérales jusqu'au milieu et pas plus, des bâtonnets d'émail. Fig. B. Avouons que pour bien remplir ces conditions, il faudrait une habileté peu ordinaire et une vue particulièrement bonne. Si le protecteur est un ciment et qu'il satisfasse à ces conditions, il ne restera plus suffisamment de place pour le silicate, car l'émail seul ne peut jamais servir de rétention à aucune obturation.

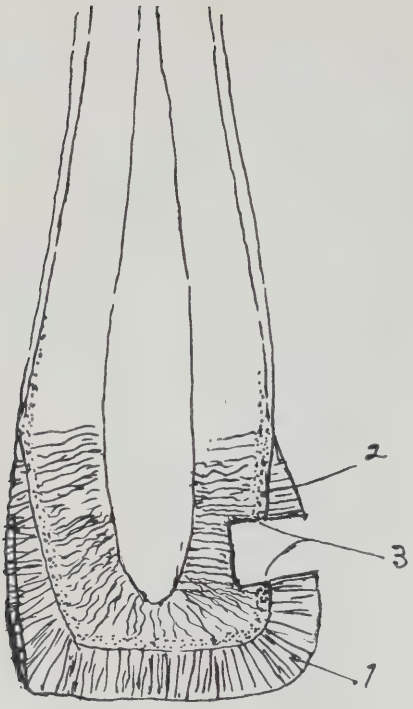

Fig. A

1—Email. 2—Couche granuleuse de Tomes. 3—Point particulièrement sensible de la cavité.

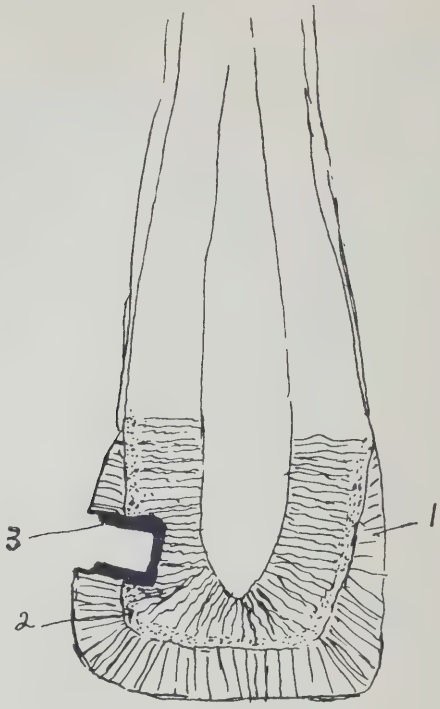

Fig. B

1—Email. 2—Couche granuleuse de Tomes. 3—Vernis, tel qu'il devrait être appliqué.

Les couches protectrices

Il semble peut-être superflu maintenant de parler des couches protectrices, vernis, ciments ou autres mélanges, après avoir dit qu'il est quasi impossible de s'en servir convenablement, mais il ne faut pas oublier qu'il ne s'agissait là que des cavités préparées pour recevoir des silicates. Dans toute autre cas de cavités profondes, ces couches protectrices ont peut-être leur utilité et sont toujours nécessaires sous un amalgame.

Les vernis s'appliquent difficilement sans qu'ils adhèrent aux parois latérales des cavités et atteignent ainsi l'angle cavo-péréphérique. Il faut donc de toute nécessité faire la toilette de cet angle avant d'insérer l'obturation définitive, car il ne faut pas que le vernis soit exposé à la salive. Or, certains vernis qui contiennent du celluloide sont tout à fait impropre à cet usage, car en essayant d'enlever le surplus vous déplacez toute la pellicule. Il faut donc que ce vernis soit composé de substances plus faciles à désagréger. Depuis bien des années j'ai travaillé à me composer des vernis où entraient toutes sortes d'ingrédients et le meilleur que j'ai trouvé est aussi le plus simple. C'est de la gomme sandaraque ou damar dissoute dans de l'acétate d'amyle. Il a ces avantages de n'être pas dispendieux, de sécher presqu'instantanément et d'être invisible si je veux m'en servir pour protéger temporairement certaines obturations, contre l'action de la salive.

Je n'insisterai pas sur l'usage des ciments comme fond de cavité. On n'a qu'à

relire ce que j'en ai dit en traitant de l'oxyde de zinc. Tout au plus ajouterai-je qu'il faut que le malaxage soit tel que l'acide phosphorique soit bien neutralisé et que plus la cavité sera profonde plus il faudra craindre la pression.

Dans certains cas de pulpe exposée, on a tenté des coiffages de toutes sortes, et particulièrement de thymol et de paraffine. L'idée était bonne et l'effort louable. Mais plusieurs comme moi ont eu peu de succès avec ce malaxage et c'est fort explicable. Le thymol et la paraffine sont deux substances qui se mêlent mais ne se combinent pas. Ce coiffage n'a pas de résistance et de plus est trop irritant pour être appliqué directement sur un coin de pulpe. Si vous voulez vous en convaincre, faites-en une préparation sur verre et appliquez-vous la sur la langue. Si l'irritation allait être légère et passagère comme dans le cas de l'eugénol, il n'y aurait pas d'inconvénient, car le thymol n'est soluble que dans les huiles. Une expérience que j'aimerais bien voir répétée par plusieurs confrères est le coiffage au baume du Canada ou à la gomme de pin ou de sapin. Je viens d'ouvir, face distale, une molaire dont j'avais coiffé la pulpe à la face mésiale, il y a 19 ans, avec une cupule d'or remplie de gomme de sapin. La pulpe est en parfaite santé.

La denture temporaire est-elle un reliquat ancestral?

par GASTON GUERARD

L'étude comparative des dents et la connaissance de leur histoire phylogénétique sont d'une importance généralement trop méconnue pour ne pas nous féliciter chaque fois qu'une recherche est tentée sur la nature intime de ces organes; aussi est-ce avec le plus grand intérêt que nous avons lu à cette place une étude de ce genre, et cela malgré que nous ne partagions personnellement ni les arguments ni les conclusions de son auteur.

Ce n'est donc pas une critique pointilleuse qui va suivre, mais une discussion uniquement basée sur l'examen des preuves présentées par M. Herpin à propos de l'origine ancestrale de la denture temporaire (1). Nous ne dirons pas en effet, dans cette brève réponse, les opinions et les faits que nous pourrions opposer à la conception de M. Herpin, les uns et les autres faisant l'objet d'une étude qui sera prochainement publiée, et nous nous contenterons seulement de reprendre les arguments invoqués au Congrès de Stomatologie de Venise.

"*Il est d'usage*, écrit M. Herpin, *de classer les espèces en polyphyodontes, diphyodontes et monophyodontes*, et ajoute l'auteur, *c'est à dessein que nous adoptons cet ordre de succession, parce que c'est lui qui correspond à la réalité des fait* . . . et plus loin encore . . . *à mesure que l'évolution se poursuit . . . les remplacements deviennent de moins en moins fréquents, et on arrive ainsi à des expèces qui conservent pendant toute leur existence les mêmes organes dentaires* . . . " (ce sont les monophyodontes).

Or, en ce qui concerne les deux derniers états, c'est TOUT LE CONTRAIRE QUI SE PASSE, et à part cette constatation que le polyphyodontisme est bien en effet l'état

(1) De la Denture Temporaire, par A. Herpin (Communication au Congrès de Stomatologie de Venise, 15-21 septembre 1930). *Semaine Dentaire*, 26 octobre 1930.—Note sur la Denture Temporaire par A. Herpin et R. Dieulafé (Communication à l'Association des Anatomistes, Amsterdam 1930), *Semaine Dentaire*, 1er février 1931.

primitif et celui qui appartient aux vertébrés inférieurs, la sériation paléontologique est ensuite complètement à l'inverse de la sériation classique, et *ce sont au contraire les monophyodontes qui précèdent les diphyodontes,* mieux que cela, il existe des formes de passage qui conduisent du monophyodontisme initial des mammifères archaïques à un diphyodontisme de plus en plus caractérisé. Voici quel est d'ailleurs le processus de cette transformation: brusquement et sans transition nous passons tout d'abord d'un seul coup du polyphyodontisme au monophyodontisme (2), dès le *Trias*, les *Protothériens* les plus primitifs (c'est-à-dire les plus anciens mammifères et ceux qui suivent immédiatement les vertébrés polyphyodontes) nous montrent une denture *monophyodonte,* et cet état va se continuer durant les longues périodes géologiques qui sépareront le *Trias* du *Crétacé* et de l'*Eocène* où s'épanouira en dernier lieu la classe des mammifères. En un mot, nous pouvons dire que sauf *Triconodon* qui remplacera la dernière prémolaire, les premiers *mammifères mésozoïques* sont monophyodontes.

Les mammifères Didelphes ou Marsupiaux (3) qui vont continuer les précédents nous montreront ensuite *une première tendance vers le diphyodontisme* grâce à cette particularité qu'une seule prémolaire est chez eux soumise au remplacement (ce sera également la dernière) (4), et lorsque enfin nous parvenons aux *Placentaires* avec les *Insectivores* (5) nous rencontrons un diphyodontisme déjà plus compliqué mais moins parfait qu'il ne le sera plus tard. En effet, les insectivores (qui malgré leurs caractères polyphylétiques dérivent sans doute d'ancêtres mésozoïques contemporains des Protothériens archaïques) nous font voir une dentition de lait qui tombe de très bonne heure et est rarement fonctionnelle, et c'est ainsi que *peu à peu nous parvenons aux diphyodontismes les mieux établis* et propres à la plupart des mammifères (6).

L'erreur de la sériation classique est ici manifeste et toute théorie basée sur elle nous sera donc *à priori* suspecte, or dans le cas qui nous intéresse, nous savons que l'auteur conclut en ces termes:

"La denture temporaire semble constituée par des organes en voie de diminution, sinon de disparition, et qui ne représentent que des vestiges d'une denture qui fût normale mais qui tend à disparaître." Les exemples choisis touchent un Primate: *Chiromys,* et *Moeritherium* un ancêtre des Proboscidiens.

Selon nous, ces exemples sont insuffisants et ne sauraient fournir la preuve d'une denture temporaire simple résidu héréditaire, et voici pourquoi:

Dans le cas de *Chiromys* (7), chez qui la denture définitive est celle d'un *Rongeur* alors que la denture temporaire est celle d'un Primate, nous avons affaire à un simple *phénomène de parallélisme* (8) comme la paléobiologie nous en fournit de si nombreux exemples. La dentition de lait de Chiromys est telle, parce que l'animal, à la fois Rongeur et Primate, est demeuré Primate et n'est pas devenu Rongeur vrai, chez lui la denture permanente a changé par adaptation fonctionnelle, mais *il ne s'est pas créé un type entièrement nouveau.* Plusieurs autres Chiromyidiens sont d'ailleurs,

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(2) En même temps qu'apparaît l'hétérodontisme typique déjà ébauché par quelques Reptiles du Permien, qui pour certains auteurs semblent annoncer ainsi les Mammifères.

(3) Isolés dans le continent Austral *dès le Crétacé.*

(4) La plupart des genres mésozoïques se rapportent en effet aux *Métathériens* et sont ainsi classés avec les Marsupiaux actuels.

(5) Réunis aux Didelphes par les curieux zalambdodontes.

(6) Quant aux *Edentés* et aux *Cétacés monophyodontes* il ne faut pas oublier qu'il s'agit d'ordres ABERRANTS. Les premiers appartenant d'ailleurs à un *type très primitif*; ces animaux seraient monophyodontes par régression (?)

(7) Du groupe des *Chiromyidiens,* réuni à celui des *Lémuriens* et des *Tarsiens* sous le nom de *Prosimiens.* Incorporation d'ailleurs discutable.

(8) Les mêmes causes peuvent produire les mêmes modifications, chez des êtres n'ayant aucune parenté immédiate.

à ce dernier point de vue, dans le même cas que Chiromys, et même *Plesiadapis* se rapprocherait davantage encore des Rongeurs, *Phenacolemur* rappelle également les Rongeurs par ses incisives développées, ses prémolaires triangulaires et massives et la forme en crête du trigone de ses molaires inférieures . . ., citons encore *Trogolemur*, *Heterohyus* qui ressemble aux Rongeurs et aux Insectivores . . . etc. . . . Tous ces rapprochements ne sont sans doute pas négligeables dans une étude phylogénétique, mais nous ne devons pas oublier que les différents types de l'*Eocène inférieur* présentent entre eux des analogies nombreuses, qu'ils fussent déjà séparés en séries divergentes ou encore intimement liés les uns aux autres. C'est pourquoi nous ne pensons pas avec M. Herpin que des comparaisons de ce genre puissent suffire à démontrer que les Primates en question eussent *régressé* vers les Rongeurs, ou alors nous devrions pouvoir en dire autant des marsupiaux, par exemple, qui se divisent en rongeurs, carnivores, insectivores et herbivores, comme les divers ordres de mammifères (9), et nous savons que le *parallélisme* se limite ici au genre de vie, au mode d'alimentation, car on ne remarque chez les Didelphes aucun des changements d'organisation observés chez les Placentaires des ordres respectifs.

Nous pourrions multiplier les exemples de ce genre, les *Toxodontes*, ces ongulés fossiles caractérisés par la spécialisation de leur dentition, miment eux aussi la denture des Rongeurs, et il y a bien là parallélisme évident puisque la structure lophodonte des tubercules est la disposition de la plupart des Ongulés auxquels les Toxodontes se rattachent indubitablement.

Isidore Geoffroy Saint-Hilaire a d'ailleurs observé ce parallélisme dans des catégories systématiques de valeurs différentes, classes ou ordres, voire dans un seul ordre, des formes parallèles peuvent être réparties dans des ordres distincts comme c'est le cas pour les Marsupiaux. Les transformations sont donc *limitées*, il existe des millions d'espèces mais elle rentrent dans un petit nombre de classes qui se rattachent à des combinaisons générales, il peut donc y avoir des *adaptations particulières* mais il existe aussi des *connexions* qui une fois rencontrées se conserveront toujours. Chez *Chiromys* en un mot, des détails se sont superposés à l'organisation générale mais celle-ci a conservé ses caractères propres, entre autres une denture temporaire de Primate.

Quant à la comparaison qui nous est présentée de l'*Eléphant asiatique* avec *Moeritherium*, elle ne nous montre qu'une ressemblance empirique et purement sensible, il s'agit en effet de l'un de ces groupes où le *polymorphisme* prête à toutes les combinaisons et rend possible toutes sortes de rapprochements et de transitions.

(Il en est de même d'ailleurs au sujet du rapprochement présenté chez les *Primates* entre les dentures temporaires et permanentes appartenant à des séries de formes différentes (10), et nous rencontrons des Lémurs archaïques possédant la même formule dentaire que l'homme, qui termine cependant la série). En outre, nous savons que par un phénomène d'*isoschémie phylétique*, toutes les ébauches dentaires se ressemblent chez l'embryon malgré leur devenir différent, il n'est donc pas surprenant que dans leur réunion en systèmes, des combinaisons pareilles se montrent chez des espèces même éloignées, et à plus forte raison voisines.

Enfin, dans la longue évolution qui sépare Moeritherium et l'Eléphant Asiatique, les incisives ont bien subi de nombreuses transformations, mais il serait difficile de leur attribuer une valeur régressive ou progressive en dehors d'une série limitée. Nous savons en effet que *Moeritherium* est contemporain des ossements assez récemment découverts dans l'Eocène supérieur du Fayoum, avec le premier Eléphantidé (Palæo-

(9) Conception qui serait rendue impossible par l'évolution paléontologique.

(10) Les 5 séries phylétiques qui réunissent les Primates tertiaires se sont séparées, à une époque très ancienne, et le tronc commun pourrait être recherché jusque dans le *Crétacé*.

mastodon) de l'Oligocène ce qui fait que *Dinotherium* (autre ancêtre des Probascidiens) localisé dans le Miocène moyen, leur serait postérieur (cette branche s'est d'ailleurs éteinte). Dans ces conditions nous ne voyons pas comment établir une évolution intéressant les trois groupes. Moeritherium montre 3 I supérieures (I^2 de grande taille, I^1 et I^3 réduites, ces dernières absentes à la mandibule), de la grosseur d'un tapir, il n'avait pas de trompe. Chez Dinotherium nous remarquons les caractères opposés, il n'y a aucune incisive supérieure et il existe 2 incisives inférieures énormes, de plus l'animal est gigantesque et mesure, 4 m. 50 de haut. Chez les Eléphantidés, les I. apparaissent cette fois à la mâchoire supérieure pour exister toujours, tandis que les inférieures manquent souvent, les caractères de ces dents sont devenus en outre *des plus variables*, principalement chez les Mastodontes, des espèces ont des I. supérieures et inférieures, d'autres n'ont pas d'I. inférieures et les supérieures sont marquées extérieurement d'un ruban d'émail, enfin Mastodon n'a pas de ruban d'émail, bref, il existe une telle variabilité que les modifications apportées aux molaires ne se font même pas simultanément avec celles qui affectent les incisives. Une pareille *inconstance dans le sens des variations* ne nous permet donc pas de conclure par la seule méthode expérimentale à une théorie phylétique, ou alors toutes sortes de déductions semblables nous seraient permises qui nous autoriseraient à réunir hypothétiquement les espèces les plus éloignées (11).

Ces réserves présentées, la *Denture Temporaire peut-elle être cependant considérée comme un reliquat ancestral,* ainsi que le propose M. Herpin? et en conséquence allons-nous la regarder désormais comme l'état atrophique d'une denture qui aurait fonctionné antérieurement?

Il nous paraît imprudent de vouloir imposer en pareille matière une conception catégorique et un système irréductible, et je ne crois pas d'ailleurs que cela fut dans l'intention des auteurs de la note qui nous occupe. Mais la présente controverse nous autorise toutefois à exposer les *raisons* qui sauraient appuyer maintenant l'opinion contradictoire que nous avons tirée de l'examen des *faits.*

L'observation expérimentale de la denture des vertébrés ne nous offre, semble-t-il, aucune preuve décisive que la Denture Temporaire fut bien un résidu phylogénétique persistant et non encore disparu, et même l'histoire de la dent primitive nous éloignerait plutôt de cette hypothèse. Nous allons voir, à présent, que l'observation raisonnée nous conduirait à un même résultat.

Le développement régressif que nous constatons à l'égard des organes dentaires appartient en réalité à une évolution générale qui est au-dessus des évolutions partielles. Chacune de ces dernières, en effet, ne représente pas uniquement un stade de l'évolution générale, puisque au contraire nous constatons que toute *évolution partielle du système dentaire trouve en elle sa propre fin.* L'ensemble de ces évolutions n'est donc pas la continuation obligatoire de développements successifs qui s'emboîteraient les uns dans les autres, et la preuve en est que le développement des formes à l'égard de la dent n'apparaît pas comme une suite ininterrompue, mais nous montre au contraire des aspects bien *différents* et bien *limités.* Or, en ce qui regarde la Denture de lait nous pouvons dire, d'une même manière, qu'elle possède en soi une causalité propre, qu'elle est pour ainsi dire une individualité, et quand même ne considérerions-nous que les phénomènes sensibles, ne la voyons-nous pas adaptée à la longueur des maxillaires, remplissant dans l'attente d'un plus grand développement l'emploi d'une denture plus parfaite? Les dents qui composent cette première dentition, leur situation, leur forme, leur nombre ne sont-ils pas expliqués par des nécessités de premier ordre,

(11) Comme si nous voulions par exemple rapprocher *Anoplotherium,* artiodactyle primitif, de l'homme parce que exceptionnellement ces deux vertébrés possèdent une denture formant rangée continue.

fonctionnelles et biologiques? Et nous pourrions même aller plus loin, et dire que les *ébauches persistantes embryonnaires elles-mêmes ne sont pas des organes rudimentaires,* ce que nous avons eu déjà par ailleurs l'occasion de démontrer.

De plus, et si nous voulons à présent user des *ressemblances,* les caractères que nous venons de signaler (forme, fonction, etc. . . .) ne nous procureront que des ressemblances sensibles comme les phénomènes qui les provoquent, c'est-à-dire *insuffisantes* à *l'Anatomie Philosophique,* or n'est-ce pas à cette dernière qu'appartiennent les conclusions de MM. Herpin et Dieulafé? Il faut donc à des conclusions de ce genre des arguments basés sur une ressemblance plus profonde, plus essentielle à la nature animale, et nous voulons parler ici de la *ressemblance rationnelle que nous donnent les connexions.*

La vraie ressemblance, il est vrai, réside en pareille matière dans l'*unité de composition anatomique,* mais entendons-nous bien, unité de composition ne veut pas dire existence d'un archétype sur lequel toutes les dents seraient construites (conception à laquelle aboutirait d'ailleurs également une anatomie par trop physiologique). Et si nous voulions, en vue de la détermination de l'organe de lait, connaître les caractères capables de nous renseigner, à quels signes conviendrait-il en effet de nous attacher? Est-ce à la fonction? évidemment non, puisque des dents pareilles remplissent des fonctions différentes et que des organes différents peuvent avoir une même fonction. Faudra-t-il recourir à la forme, à la structure? Nous savons que toutes deux varient avec la fonction. Reste alors la position relative, la *dépendance mutuelle,* en un mot la *connexion* des organes, entre eux? assurément ce caractère *invariable* et *dominateur* semble vouloir nous permettre davantage de suivre l'organe dentaire dans ses métamorphoses à travers la série des vertébrés.

Laissant donc de côté, dans le cas présent, forme, volume et fonction, ne semblerait-il pas préférable de consulter surtout les rapports déterminés et *constants* de position? et nous verrions alors que la denture temporaire, même considérée comme un état rudimentaire, se *retrouvera toujours dans des conditions analogues,* se montrant en cela d'accord avec le principe constant de la *fixité des connexions* (12). Interpréter la première dentition comme le simple témoignage d'une hérédité douteuse, nous paraît donc un jugement un peu précipité, car nous pourrions aussi bien nous poser cette question: "l'état de la denture temporaire représente-t-il une phase régressive ou un *commencement?* . . ." après tout, les Mammifères monophyodontes ont bien précédé les diphyodontes . . . Nous ne nous hasarderons cependant pas à discuter cette proposition en raison des difficultés mêmes que nous avons signalées déjà, et nous terminerons ces quelques lignes sur une conclusion simplement en accord avec le raisonnement et les faits.

De plus en plus, à l'heure actuelle, les biologistes se montrent circonspects sur la désignation des organes rudimentaires, jadis toutes les glandes à secrétion interne étaient considérées comme tels, et quantité d'organes, comme par exemple les mamelles des mâles étaient regardés comme des reliquats ancestraux; aujourd'hui la liste en est faite avec beaucoup plus de réserves, parce que nous savons qu'un même organe peut aider à plusieurs fonctions, et si l'une de ces dernières vient à être abolie ou diminuée, l'organe subsiste pour remplir les autres, tel est le cas des incisives supérieures qui ne se montrent jamais chez certains ruminants. Aussi croyons-nous devoir répondre comme il suit, au problème qui nous est posé:

"La Denture Temporaire ne semble pas se présenter sous l'aspect d'un résidu ancestral en voie de disparition, mais plus vraisemblablement au contraire comme une réalisation constante, parce que nécessaire à l'espèce."

(12) Le Diphyodontisme est un fait caractéristique appartenant à la plupart des Mammifères et ne se rattachant à rien de connu en dehors de cette classe.

Les Prétendus Méfaits de l'Extraction Dentaire en Période Aiguë *

par FERNAND PELLIER

L'Opinion dentaire belge (janvier-février-mars 1940)

L'auteur s'élève contre le préjugé particulièrement tenace dans le public et, ce qui est plus important, parmi les chirurgiens-dentistes, à savoir:

En présence de phénomènes inflammatoires aigus, fluxion avec la déformation caractéristique et classique de la face, collection suppurée ou cellulite diffuse, il ne faut pas enlever la dent coupable.

La période aiguë est une contre-indication absolue à toute intervention dentaire.

Il signale que, depuis un temps déjà long, le professeur Sebileau a insisté sur les conséquences parfois graves de l'abstention et recommandé l'avulsion immédiate.

Tout d'abord, dans un exposé historique, il rappelle les phases principales de cette discussion ancienne et non éteinte entre les partisans et les adversaires de l'extraction "à chaud".

Puis, après une rapide analyse des différents cas cliniques observés, il tente de faire le point sur la question. Il expose la conduite de chaque groupe de praticiens et les méthodes employées; il en fait la critique et indique la conduite à suivre dans chaque cas. Le Dr Pellier conclut enfin:

Sauf dans les lésions dentaires limitées qui peuvent être drainées ou mises à plat par un traitement simple, il convient de pratiquer, dans tous les cas compliqués, l'extraction de la dent causale.

Cette extraction assure le drainage et évite la propagation locale ou générale de l'infection.

Cette extraction doit être pratiquée immédiatement dans la période dite "à chaud".

Les statistiques et l'expérience démontrent le bien-fondé de cette indication thérapeutique.

L'abstention, dans de tels cas, est dangereuse; elle a, sans aucune discussion possible, plus de morts à son actif que l'extraction. Mais l'extraction doit être pratiquée selon certaines règles:

a) Pas d'anesthésie locale, ni loco-régionale.

Les infiltrations de substances anesthésiques et vaso-constrictrices diffusent l'infection, amoindrissent et frappent de stupeur les éléments de résistance, retardant la cicatrisation.

b) L'anesthésie générale au chlorure d'éthyle, anesthésie lente, donnée à la compresse et surveillée par un anesthésiste compétent, est la méthode de choix. L'évipan sodique et les substances anesthésiques de base sont à étudier.

Si l'anesthésie est contre-indiquée, pas d'anesthésie; utiliser le "sommeil crépusculaire" chez les sujets dont le cœur et les reins ne sont pas trop touchés.

c) L'extraction doit être limitée à la dent, sans manœuvre de force, en évitant les dégâts alvéolaires et le traumatisme muqueux trop étendu; toute action doit s'effectuer au contact de la dent.

d) Cette extraction, dans les cas compliqués, et notamment dans les ostéophlegmons, doit être suivie par une exploration de l'alvéole pour assurer un meilleur drainage de la collection.

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* Thèse de Montpellier 1939. Ed. Laffitte Lauriol, rue Collot, Montpellier.

e) Toutes ces manoeuvres devront être précédées et suivies par un traitement approprié contre l'infection et, tout en soulignant le rôle possible des sulfamides, *nous pouvons conseiller l'emploi du propidon de Delbet.*

Les méfaits de l'extraction de la dent à chaud, à condition que cette extraction obéisse à des règles précises, ne sont dans la grande majorité des cas, qu'une tradition orale qui ne correspond pas à la juste et honnête réalité des faits.

Dr M. Rochette.

Emplois multiples des rouleaux de coton

a) Dans les petites opérations de chirurgie buccale: ils maintiennent les lèvres en leur assurant un appui ferme et les empêchant de glisser, en même temps qu'ils absorbent le sang et la salive et protègent les régions voisines.

b) Pour arrêter les hémorragies consécutives aux extractions dentaires, la compression est réalisée de façon parfaite par un rouleau de coton du diamètre voulu placé verticalement dans l'alvéole.

c) Dans le traitement de la pyorrhée, des stomatites, on pourra prolonger l'action des médicaments en utilisant les rouleaux de coton comme compresses, soit pendant la séance, soit même au domicile du malade. Des rouleaux de longueur voulue, 15 centimètres environ, peuvent être appliqués sur l'arcade en entier et laissés en place le temps nécessaire.

d) Pour maintenir sec le champ opératoire on obtiendra de meilleurs résultats, surtout en ce qui concerne les régions molaires, en plaçant des rouleaux de longueur voulue du côté vestibulaire, *verticalement,* et non horizontalement comme cela se fait d'habitude. Le rouleau ainsi placé, maintient également la bouche ouverte. Pour les molaires inférieures, le rouleau de coton de 7 à 8 centimètres de long, placé sur la face vestibulaire de ces dents, sera replié à l'arrière pour remonter tout au long du vestibule supérieur.

e) Pour conserver le brillant des bistouris, lancettes, etc., au cours de la stérilisation, en introduire la lame dans un rouleau de coton.

f) Pour la stérilisation des gants de caoutchouc. On sait que malgré toutes les précautions prises, les gants sortant de l'autoclave ne sont pas toujours stériles, ce qui provient du fait que l'air ne peut pas circuler librement dans toutes leurs parties. Pour éviter cet inconvénient, on procédera comme suit: introduire dans chaque doigt du gant un rouleau de coton; tourner le poignet vers le bas en y introduisant au préalable une éponge de gaze ouverte de 7 centimètres sur 7 centimètres; placer une autre éponge de gaze de 5 centimètres sur 5 centimètres entre le pouce et l'index.

g) Enfin, pour certains patients très pusillanimes, qu'effraie la vue de l'aiguille de la seringue hypodermique, il sera facile de la leur masquer en l'entourant d'un rouleau de coton.

(*La Tribuna Odontologica, mars* 1940).

Procédé pratique pour obtenir sûrement une occlusion exacte dans le coulage des pivots d'une seule pièce

Lorsque l'on coule d'une seule pièce un pivot avec base par la méthode indirecte pour supporter une couronne Davis, une dent à tube, etc., il est généralement reconnu que c'est au moment de prendre l'occlusion qu'une erreur peut être commise, laquelle entraînerait la réfection complète du travail.

Pour parer à cet inconvénient et assurer succès de l'opération voici la manœuvre simple qui doit être exécutée:

Une fois obtenu l'empreinte de la racine et confectionné le modèle en amalgame, on coule en argent ou en toute autre matière bon marché la partie correspondant au pivot et à la base ou chapeau de la racine, en laissant un petit excès pour servir de contrôle, et pour faciliter son placement exact dans l'empreinte correspondante.

(L'Information Dentaire—mai 1940)

Ce procédé permet de repérer la position du modèle en amalgame dans l'empreinte avec ses rapports exacts avec les dents voisines.

La pièce coulée étant mise en position dans la racine, on fait mordre, comme d'habitude, et on prend une empreinte au plâtre.

Avant de couler le modèle, on mettra en place la pièce coulée, conjointement avec le petit modèle d'amalgame que l'on fixera avec un peu de cire dure, afin d'éviter tout déplacement.

Dans le modèle obtenu la reproduction en amalgame de la racine est dans une position que nous pouvons considérer avec une certitude absolue comme étant exacte.

On procède ensuite comme d'habitude.

Ce procédé rendra de réels services aux practiciens dans les cas où ils n'auront pas la certitude d'avoir opéré avec exactitude. Il présente l'énorme avantage d'éviter, avec très peu de travail, toute erreur dans 100 pour 100 des cas.

(Dr. G. A. Bizzozero, *Protesis, déc.* 1939).

Le Docteur Jules Thébaud a l'honneur

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